

Identifying the Aspects and Components Impacting on Enterprise Resources Planning (ERP) Utilization with Human Resources Empowerment Approach in Education

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Abstract: Enterprise resources planning system and its impact on empowerment of human resources, as the most valuable asset of any enterprise, is not something to be overlooked. The purpose of this research was to identify the aspects and components impacting on enterprise resources planning system utilization with the approach of human resources' empowerment in Education. A questionnaire was used to collect data and identification of the relevant components was made by thematic analysis method. The statistical population of this research include practitioners and managers of information technology and human resources of General Office for Education of Fars province and sampling method is cluster random. As a result of analysis, the components of enterprise resources planning system include organizational strategy and policy, organizational breadth and complexity, business processes, management-communications and organizational culture, human resources, skill and empowerment, shared values and beliefs, and aspects of human resources empowerment are: capability, independence, influence and role play, worth, trust and honesty.

Keywords: Enterprise Resources Planning (ERP), Human Resources Empowerment, ERP Components, Human Resources Empowerment Components

1. Introduction

Enterprise resources planning systems are widespread software systems that support the integrated development of information across the different parts of the organization. Such systems seek to integrate and create dynamism and mobility in organizational processes and flow of information within the organization. Organizations need to implement an enterprise resources planning system to maximize the return. By integrating the information, ERP shares the information across all departments of the organization, and all departments and parts of an organization will be easily able to benefit from the integrated information of the organization.

Enterprise resources planning systems can be defined as an integrated software, which has various components or modules in organization's operational areas such as planning, production, distribution, human resource management etc. The architecture and structure of the enterprise resources planning systems is designed in a way to provide the integrity and comprehensiveness of companywide and a fluent flow of information among different departments of the organization. These systems enhance the operational efficiency and effectiveness of organizations and prepare them for the presence in competitive market by creating intra-organizational and inter-organizational operational and managerial integration and accelerating business processes (Olson, 2003). The enterprise resources planning system is indeed the apex and evolution of information systems in the present era. The capabilities of these systems have caused that public and nonprofit companies, in addition to trade ones, take action to use them and to provide the ground to improved customer services (Clyde et al., 2005).

From Konger and Kanungo perspective (1988) empowerment is rooted in motivational needs of individuals. Any strategy or action that can enhance the need to self-efficacy in employees will result in empowerment. Thomas and Velthous (1990) view the psychological empowerment as the process of enhancing intrinsic job motivation, comprising four cognitive areas i.e. sense of impression, competence, meaningfulness, and right of choice, and they introduced the concept of psychological empowerment in management literature for the first time. Spritzer (1995) defined the psychological empowerment as a motivational concept consisting of four aspects i.e. competence, autonomy, meaningfulness, and impression. Wetten and Cameron (1998) see empowerment as empowering the employees, which means helping them to enhance their sense of self-confidence and to overcome their sense of inability or helplessness. While confirming the four aspects of empowerment by Thomas and Velthous (1990) and Spritzer (1995), these authors added the trust aspect to it. Thus, the aspects of psychological empowerment include a sense of autonomy, a sense of competence, a sense of impression, a sense of meaningfulness, and a sense of trust. According to Baloh, Peter & Trakman (2004) empowerment is an important strategy for the growth of different organizations in order to adapt to external changes and one of the key issues for organizations. In the present era, the empowerment is recognized as a means by which managers will be able to administer the current organizations, which have the features such as diversity of penetration networks, growth, reliance on horizontal and network structure, minimized gap of managers from the staff and reduction of organizational belonging and utilization of information technology, efficiently. Having empowered, creative, and competent human resources is among the

most important competitive priorities of the current organizations and this will not be achievable unless the organization's human resources is viewed as a strategic department.

The Education system, which itself produces capable, skilled, and competent manpower for different parts of society, also needs a significant portion of the same expert and skilled manpower for its survival and sustainability. In the current circumstances, we seriously need all-out and comprehensive planning of the organization's resources, especially human resources and implementation of enterprise resources planning system can be a ground for mobility and dynamism of educational system and consequently, human resources empowerment and thus, the importance of this issue made the researcher help Education authorities by doing this research. This research, which is adopted by a PhD thesis in human resource management, seeks to identify the aspects and components impacting on ERP utilization with the approach of human resources empowerment in Education in order that the respective practitioners can cause the promotion and excellence of Education by improving and enhancing the identified components.

2. Methods:

This study is a research and developmental in one perspective in terms of aim, since a specific uncertain situation was first identified and its conceptual framework was formulated based on the research findings. From another perspective, with regard to the fact that the purpose of the present research is to spread applied knowledge in a particular context, this research can be considered as an applied research. In terms of the data nature, this research is a qualitative one. In other words, the thematic analysis method was used in this study to identify the desired components in order to identify the aspects and factors affecting the ERP utilization with the approach of human resources empowerment in Education. The thematic analysis is a process to analyze textual data and converts scattered and diversified data into rich and detailed ones (Braun & Clarke, 2006). The thematic analysis is somewhat similar to the content analysis, but with subtle differences. Content analysis most often focuses on the micro level and often represents the data frequency and provides the quantitative analysis of qualitative data. One of the drawbacks of content analysis is that either the data context is usually ignored or too little attention is paid, which makes the data richness greatly get reduced. However, in thematic analysis, the unit of analysis is more than a word or term, and more attention is paid to the context of data and their subtleties. In addition, the thematic analysis goes beyond counting explicit words and terms and focuses on identifying and explaining explicit and implicit ideas. Then, the main themes' codes are used for in-depth data analysis (Namey et al., 2007). Therefore, thematic analysis does not depend on a pre-existing theoretical framework and can be applied in different theoretical frameworks and different matters. The thematic analysis is divided into different types based on different categories. From the viewpoint of thematic recognition, it is divided into the analysis of the primary and final theme. Initial thematic analysis is known in the early phases of research, and the present research is also considered as a primary thematic analysis. In terms of theme nature in the text, the thematic analysis is divided into descriptive, interpretive, and relational types and thematic analysis in the present study is in descriptive and interpretive type since on the one hand, the thematic analysis describes what is written in the text as they are in this study and on the other hand, interprets it if necessary. In terms of the visibility of the theme in the text, the thematic analysis is divided into visible and latent types. The thematic analysis is visible directly in the text but the latent thematic analysis is not directly visible in the text and its text should be extracted according to the concept. Thematic analysis in terms of theme visibility of in the text is both evident and latent in this research. In terms of theme identification origin, thematic analysis is divided into data-driven and theory-driven types. Data-driven thematic analysis is recognized based on research data but theory-driven thematic analysis is recognized by theories and research. The present research is considered to be theory-driven because it is based on the theories and researches of various researchers. Therefore, thematic analysis is theory-driven in terms of theme identification origin in the present study. The level of analysis represents the level and scope that the researcher chooses to analyze the theoretical concepts and gathered information, so that the inferred results are generalizable only at the same level and generalization of the results obtained at the levels higher or lower than the selected level for analysis is invalid. The aspects and components affecting the ERP utilization with the approach of human resource empowerment in Education were identified at the present research by the researchers' perception (which was determined through the thematic analysis of related papers, patterns, and models).

Library methods have been used for data collection in the present study. The data used in the research may be primary or secondary. The researcher acquires the primary data first-handedly and often through observations, questionnaires and interviews. The secondary data are obtained from other sources in various ways. These data are created and available before the researcher begins the research and therefore, key aspects and factors influencing the ERP utilization were identified by the human resources empowerment approach in Education firstly through library study (studying the books, references, papers, previous research and related models) in order to develop the initial conceptual model of the research and meanings, attitudes, priorities, and perception of the researchers regarding the aspects and factors affecting the ERP utilization with the approach of human resources empowerment

in Education were discovered using the thematic analysis method. The following steps were taken to analyze the content of related researches, papers, and models:

- Decision was made on the unit or level of analysis: The unit of level is the organization.
- Related concepts were identified and defined: Aspects and components affecting the ERP utilization with human resources empowerment approach in Education
- The coding rule was formulated.
- The information existing in the papers and researches were reviewed.
- Information were coded and adjusted.
- The results were analyzed.

Thematic analysis method was used to identify, analyze, and report the patterns existing in related papers and researches in order to identify the aspects and factors affecting the ERP utilization with the approach of human resources empowerment in Education. Thematic analysis goes beyond counting explicit words and phrases and focuses on identifying and explaining explicit and implicit ideas. Finally, sixty-nine papers and researches, which were explicitly or implicitly related to the concepts under study, were analyzed and the following steps were taken:

There are various ways to analyze the theme, each of which follows specific processes. A comprehensive step-by-step process for thematic analysis is developed in this thesis by combining King & Horrocks (2010) proposed method. The thematic analysis process is introduced in three phases, six steps, and twenty actions in this section. The complete process of thematic analysis can be divided into three macro phases: (a) text analysis and description, (b) text interpretation and description, and (c) text merge and re-integration. While all these phases are accompanied by interpretation and analysis, a higher level of abstraction is achieved at each phase of the analysis. The thematic analysis process begins when the analyst seeks to identify patterns of meanings and themes in the data, although this may occur during the data collection. The endpoint of this process is also to provide a report of the content and meanings of patterns and themes in the data. In addition, analysis is a process that takes place over time and should not be implemented in a hurry. Writing is also an essential part of the process that starts from the very first step and continues until the final one.

The statistical population of the research includes the practitioners and managers of information technology and human resources of General Office for Fars province's Education. Since Fars province's Education has the largest number of educational districts countrywide and covers a wide range of low-income to high-income areas, it is typically the most widespread Education in the country. In addition, a significant number of distance Education schools are set up in the province and, in a sense, Fars province can be called the small Iran. Conducting the present research in this province can be considered as the evaluation pilot and can be used as the test sample run site as well. Therefore, the above-mentioned statistical population has been selected considering the mentioned cases and the availability and familiarity of the researcher with the Education of the province and sufficient knowledge of its organizational environment. Given the acceptable error of 5% and 95% confidence level, and the fact that the required sample size to perform the survey is equal to 136 individuals according to Cochran sampling table. With regard to the rate of questionnaires return, 155 questionnaires were distributed, 141 of which were returned completely and correctly and were analyzed. A multi-stage cluster random sampling method was used to select the subjects. In summary, this research can be considered as a fundamentalist positivism paradigm in terms of philosophy, purpose, and procedure of action, as qualitative in terms of research page, and descriptive (non-experimental) in terms of data collection. The required information were collected by library study method, thematic analysis and Delphi method.

3. Qualitative data analysis

The data collection tool is thematic analysis in this research and so, the qualitative findings are based on the analysis of the data collected from the thematic analysis, which have been analyzed accordingly. Initially, the initial codes were extracted in the first step by repeatedly reviewing the related papers and researches in this method. In the second step, different codes were categorized into sub-themes. The themes were reviewed in the third step. This phase consisted of two phases of review and themes refining. The first phase consisted of a review at the level of coded abstracts and the second phase included the validity of the themes in relation to the data set. The themes were then named according to their semantic relevance to the theoretical foundations of the research. Finally, according to all the identified themes, a more general classification was made based on their level of analysis, which led to the creation of the main themes. Up next, the research question is answered by the findings of the analysis.

Research question: What are the aspects and components impacting the ERP utilization with the approach of human resources empowerment in Education?

To answer the above question, 98 themes have been extracted by repeatedly reviewing the relevant papers and research, which is presented in Table 1.

Table (1): Early themes of ERP with human resources empowerment approach in Education

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- A1 Formulation of vision and mission clearly and unambiguously
 - A2 A suitable understanding of organization's mission vision
 - A3 Formulation of goals and objectives clearly and unambiguously
 - A4 Formulation of goals in a way that they could be achievable
 - A5 Formulation of goals in a way that they could be measurable
 - A6 Understanding the goals and objectives throughout the organization
 - A7 Strategic comprehensive plans for ERP Implementation
 - A8 Developing a strategy for ERP development
 - A9 Developing a strategy for ERP evaluation
 - A10 Structure's readiness for ERP adoption
 - A11 Ability to create a change in the structure
 - A12 Amount of delegation of authority and granting the decision-making power
 - A13 Independent IT structure
 - A14 Organization access to required resources and other organizations
 - A15 The breadth and complexity of organizational structure
 - A16 Independent management of IT division
 - A17 IT department manager's ability to communicate with other departments
 - A18 Adopting the IT division as a strategic partner of the organization
 - A19 Hardware infrastructures for ERP adoption and development
 - A20 Software infrastructures for ERP adoption and development
 - A21 Security infrastructures for ERP set-up and development
 - A22 Definition and validation of business processes
 - A23 Formulation of daily processes and workflows and functions
 - A24 Evaluation of business processes needs
 - A25 Ability to review and reengineer the processes
 - A26 Required data and contents
 - A27 Organizational interest in providing and purchasing the required content
 - A28 Organizational interest in content creation and content conversion into digital media
 - A29 Different levels of management's support of IT development plans
 - A30 Affordability to allocate adequate and consistent budget
 - A31 Senior executives support of allocating the required resources and credits
 - A32 Comprehensive E-learning communication program
 - A33 Free flow of information within the organization
 - A34 Information flow among team members, staff and project managers
 - A35 A culture of teamwork, participation, and mutual collaboration
 - A36 Culture of tolerance to risk and risk-taking
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- A37 Organizational learning culture (knowledge creation and sharing culture)
 - A38 Appropriate mechanism of recruiting, nurturing and retaining the staff
 - A39 Existence of empowered labor force capable of doing the things
 - A40 Existence of IT and system engineers
 - A41 High number of young employees in the organization (under 30)
 - A42 High staff education rates
 - A43 Proper needs assessment (identifying organizational training needs)
 - A44 Existence of comprehensive and appropriate staff training strategy
 - A45 Ability to plan and organize training programs
 - A46 Having a strong project team in the organization
 - A47 Developing a detailed project operational program and plan and defining standards and procedures for project implementation and execution
 - A48 Determining and reviewing the project quality manager's policies, goals and responsibilities
 - A49 Determining the project activities documentation strategy
 - A50 Providing technical requirements
 - A51 Managers' personal and communication skills
 - A52 Managers' leadership and team-making skills
 - A53 Ability to predict and plan (in order to eliminate possible errors)
 - A54 Manager's ability to properly use the well-qualified consultants
 - A55 Personal and communication skills of IT staff
 - A56 IT staff's managerial skills
 - A57 IT Staff's technical skills
 - A58 User skills in using computers and related software
 - A59 Users' personal and communication skills
 - A60 Managers' belief in benefits of using ERP
 - A61 Staff's belief in benefits of using ERP
 - A62 Users' belief in benefits of using ERP
 - A63 All staff's belief in creating a team culture and interdepartmental collaboration
 - A64 Managers' commitment to ERP implementation
 - A65 Staff's commitment to ERP implementation
 - A66 Commitment of staff and managers to teamwork and work in groups
 - A67 Existence of enterprise resources planning project champion
 - A68 Project champion support for ERP implementation
 - A69 Project champion assistance to ERP research and development
 - A70 Staff's career and job knowledge and skill
 - A71 Employees sureness of their abilities and capabilities to perform the things successfully
 - A72 Assigning the things to employees in the scope of their powers and capabilities
 - A73 Providing opportunities for equitable growth and development of staff's skills and knowledge
 - A74 Providing the staff with the opportunity for learning and growth in career
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- A75 Existence of employee’s job promotion opportunity
- A76 Staff independence and freedom to perform the duties
- A77 Freedom of employees to use personal initiatives
- A78 Employees’ much control over what happens in their workplaces
- A79 Staff predomination on the quality and procedures to do the tasks
- A80 Employee’s striking penetration and influence over their work set
- A81 The staff’s ideas and opinions being considered in their work set
- A82 Importance of staff comments and suggestions
- A83 Staff decision making about how to do the tasks
- A84 Employee’s participation in decision making and problem solving
- A85 Incorporating the staff comments and suggestions in organizational decisions
- A86 Assigned task activities’ being important and valuable for employees
- A87 Importance and value of goals achievement for employees (personnel striving regardless of organizational requirements and willing to ascertain the goals)
- A88 Employees enjoy to work with similar people in the organization
- A89 Employee feeling in pursuit of important and valuable career goals in the organization
- A90 Sense of being valuable in doing the assigned tasks
- A91 Employee’s access to personal work files information
- A92 Dissemination of information related to compensation (salary) and reward structure
- A93 Submission of information to employees about the organization's goals, strategies and plans
- A94 Sharing important information among employees
- A95 The honest behavior of staff with directors and each other
- A96 Free expression the staff comments (without any fear to be reprimanded)
- A97 Employees’ attention to the success of organization and management
- A98 Amount of confidence in employees in different affairs

After extracting the metrics, with the assumption of how different primary metrics can be combined to create the factors, the researcher has classified the metrics and specified the factors by combining them while looking for the factors. Table (2) shows axial coding in the factor identification framework.

Table 2: Primary concepts extracted in open coding phase

Code	Concept or description of the factor	Index
B1	Vision and mission	A1, A2
B2	Goals and objectives	A3, A4,A5,A6
B3	Strategic plans	A7,A8,A9
B4	Formalization	A10,A11,A12
B5	Size of organization	A13,A14,A15
B6	Role and position of IT manager	A16,A17,A18
B7	IT infrastructure	A19,A20,A21
B8	Business processes	A22,A23,A24,A25
B9	Data and information	A26,A27,A28
B10	Senior management support	A29,A30,A31
B11	Organizational communications	A32,A33,A34
B12	Organizational culture	A35,A36,A37
B13	Human resources management	A38,A39,A40,A41,A42

B14	Education	A43,A44,A45
B15	Project team	A46,A47,A48,A49,A50
B16	Managers' skills	A51,A52,A53,A54
B17	Staff's skills	A55,A56,A57
B18	User's skills	A58,A59
B19	Shared beliefs	A60,A61,A62,A63
B20	Organizational Commitment	A64,A65,A66
B21	Project champion	A67,A68,A69
B22	Empowerment and skill of the staff	A70,A71,A72
B23	Employees capabilities' headway and development	A73,A74,A75
B24	Staff's independence and freedom of action	A76,A77
B25	Predomination and control of staff over assigned affairs	A78,A79
B26	Influence and penetration of staff	A80,A81,A82
B27	The role of employees in decision making	A83,A84,A85
B28	Career goals and activities' being important and valuable	A86,A87
B29	Sense of being valuable	A88,A89,A90
B30	Free dissemination of information	A91,A92,A93,A94
B31	Staff trust and honesty	A95,A96,A97,A98

After creating the factors based on extracted (metrics) primary codes, by assuming how the factors can be combined to create the components, the researcher looks for the components, classifies the codes, and has specified the components by combining them. Table (3) shows the axial coding in components' identification framework. organizational breadth and complexity

Table 3: The basic themes identified in axial coding phase

Combined factor's codes	Component's theme	Component's code
B1,B2,B3	organizational strategy and policy	C1
B4,B5,B6	organizational breadth and complexity	C2
B7,B8,B9	business processes	C3
B10,B11,B12	management- communications and organizational culture	C4
B13,B14,B15	human resources	C5
B16,B17,B18	skill and capability	C6
B19,B20,B21	shared values and beliefs	C7
B22,B23	capability	C8
B24,B25	independence	C9
B26,B27	influence and role-play	C10
B28,B29	being valuable	C11
B30,B31	trust and honesty.	C12

Finally, the researcher has categorized the factors and identified the main aspects by combining them. These themes are at a higher level of abstraction than in the previous phase. The main theme identified are the aspects and factors of ERP and aspects and empowerment of human resources. Table (4) shows the selected coding in aspects' recognition framework.

Table 4: The main theme specified in selected coding phase

Aspect code	Aspect theme	Component's combined codes
D1	ERP	C1, C2, C3, C4, C5, C6, C7
D2	Human resources empowerment	C8, C9, C10, C11, C12

4. Discussion and conclusion:

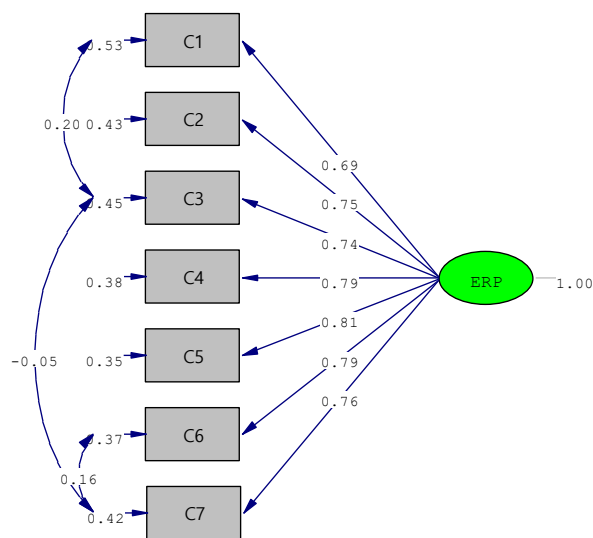
Content analysis method was utilized in this research aiming at identifying the aspects and components affecting the ERP utilization with human resources empowerment approach in Education and thus, extensive studies was conducted in the books, papers, research, previous research etc. while seeking advice of professors, elites and experts in this area. While studying the related references and texts, national and international models, which have high scientific and executive support and have been implemented in different countries at national and international level, were investigated.

In this regard, while studying the previous researches and related models, 18 models including Mackenzie's 7s, BEST (2002), Ankabouti (2005), Raymond Luis (2006), Dississiva and Nanayakara (2006), Razmi et al. (2008) , Thomas & Velthous (1990), Veget & Marl (1990), Bandora (1991), Bowen & Lawler (1992), Spritzer (1995), Malak & Karzeto (1996), McLagan Wennell (1997), Knowler (1997), Cao (2001), Robbins-Crino and Frendall (2002) and Yahyamlehm (2004) were analyzed particularly and the research components were identified and defined as follows:

Aspects and factors affecting the ERP utilization in Education

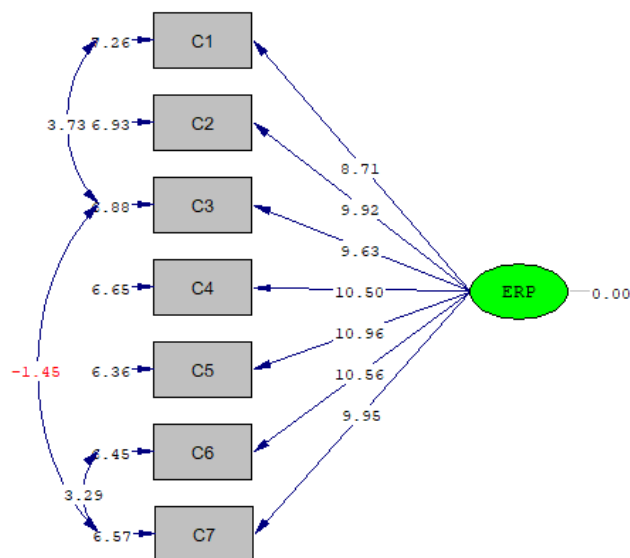
The enterprise resources planning system (ERP) is a set of integrated applications developed to coordinate the organization's vital activities and is tasked with coordination and alignment of the activity of all information systems within the organization. In other words, the enterprise resources planning system is a central system developed to share information across different operational levels and is widespread throughout the organization and typically relates to all existing information systems in the organization. As stated above, ERP consists of 7 components, 21 factors and 69 metrics. Therefore, the components impacting on ERP utilization in Education are: organizational strategy and policy, organizational breadth and complexity, business processes, management- communications and organizational culture human resources, skill and capability, shared values and beliefs.

The estimated path for the ERP structure 1 is presented as follows:



Chi-Square=17.12, df=11, P-value=0.10430, RMSEA=0.064

Figure (1) Factor loadings of ERP structure indicators



Chi-Square=17.12, df=11, P-value=0.10430, RMSEA=0.064

Figure (2) t-statistic value for the ERP structure

Table (5) Goodness-of-fit indices of the structural model for ERP structure

Item	Name	Desired value	Calculated value	Situation
1	df/ 2	<3	556/1	Desired
2	RMSEA	<0.1	064/0	Desired
3	NNFI	>0.9	98/0	Desired
4	NFI	>0.9	98/0	Desired
5	CFI	>0.9	99/0	Desired
6	AGFI	>0.9	91/0	Desired
7	GFI	>0.9	97/0	Desired

Based on the findings of Table (5) for enterprise resources planning system index, NNFI, NFI, CFI, AGFI and GFI are 0.98, 0.98, 0.99, 0.91 and 0.97, respectively that implies a desired and suitable fit of the model. RMSEA indices and chi square to degree of freedom ratio are 0.064 and 1.556, respectively, which confirms the desired fit of the model.

Table (6) ERP convergence - structure validity investigation results

Items	Factorial load	T	factorial loadings significance	AVE	Combined reliability	Convergent - structure validity
Organizational strategy and policy	0/69	8/71	p			
Organizational breadth and complexity	0/75	9/92	p			
Business processes	0/74	9/63	p	0/581	0/761	p
Management, communications, and organizational culture	0/76	10/50	p			

Human resources	0/81	10/96	p
Skill and capability	0/79	10/56	p
Shared values and beliefs	0/76	9/95	p

According to Table (6), the factor loadings of the investigated items can be observed. As is shown in this table, all factorial loadings of the items are greater than 0.4. In addition, since the value of t for all factorial loadings is greater than 1.96, it can be said that all factorial loadings are significant at 95% confidence level. Since the factorial loadings are greater than 0.4 and significant; and the mean variance extracted is obtained greater than 0.5, existence of convergent validity for the ERP aspect is confirmed.

Aspects and components of human resources empowerment in Education

Human resources empowerment is a set of systems, methods, and actions employed to improve and enhance the productivity, eloquence, growth, and prosperity of the organization and manpower in accordance with the objectives of the organization through nurturing the capabilities and competencies of individuals. Empowerment approaches include communication, motivational, and cognitive approaches. The approach of this research in empowerment is the cognitive one. According to the cognitive approach, empowerment is the process of increasing the intrinsic motivation to perform the assigned tasks. This process refers to the positive experiences that people gain directly from doing their duties. These experiences stimulate intrinsic motivation to perform the assigned tasks and ultimately lead to increased satisfaction. This research deals with a set of cognitive-motivational areas of human resources empowerment and as stated the empowerment consists of 5 components, 10 factors, and 29 metrics. Therefore, the components of human resources empowerment in Education in this research are: capability, independence, influence and role-play, being valuable, trust and honesty.

The estimated pathway for human resources empowerment structure is presented at below:

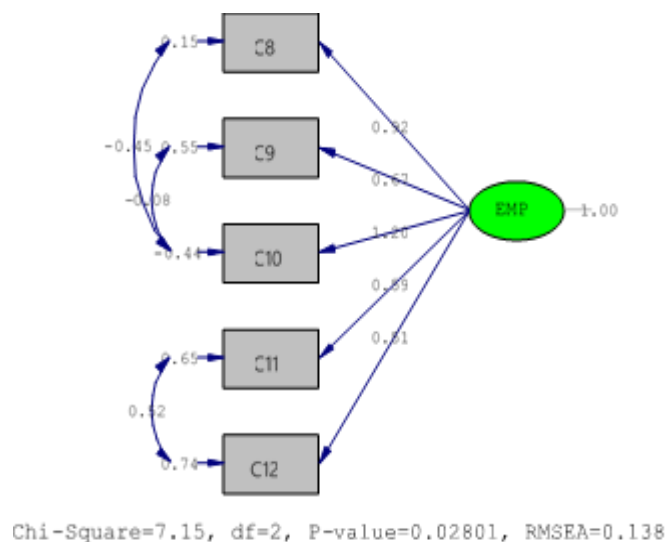


Figure (3) Factorial loadings of human resources empowerment structure indices

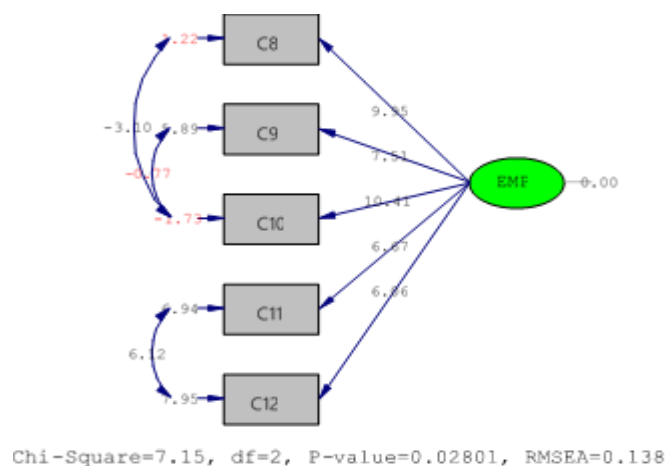


Figure (4) t-statistic value of human resources empowerment structure indices

Table (7) Goodness-of-fit indices of the structural model for human resources empowerment structure

Item	Name	Desired value	Calculated value	Situation
1	2X/df	<3	0/32	Desired
2	RMSEA	<0.1	0/000	Desired
3	NNFI	>0.9	1	Desired
4	NFI	>0.9	1	Desired
5	CFI	>0.9	1	Desired
6	AGFI	>0.9	0/99	Desired
7	GFI	>0.9	1	Desired

Based on the findings of Table (7) for human resources empowerment index, NNFI, NFI, CFI, AGFI and GFI are 1, 1, 1, 0.99 and 1, respectively that implies a desired and suitable fit of the model. RMSEA indices and chi square to freedom ratio are 0.000 and 0.32, respectively, which confirms the desired fit of the model.

Table (8) Structure validity investigation results - human resources empowerment convergence

Items	Factorial loading	T	Factorial loading significance	AVE	Combined reliability	Convergent-structure validity
Capability	0/92	9/95	p			
Independence	0/67	7/51	p			
influence and role-play	1/20	10/41	p	0/669	0/951	p
being valuable	0/59	6/67	p			
trust and honesty	0/51	6/06	p			

According to Table (8), the factor loadings of the investigated items can be observed. As is shown in this table, all the factorial loadings of the items are greater than 0.4. In addition, since the t value for all the factorial loadings is greater than 1.96, it can be said that all the factorial loadings are significant at 95% confidence level. Since the factorial loadings are greater than 0.4 and significant; and the mean variance extracted is greater than 0.5, the existence of convergent validity for the human resources empowerment aspect is confirmed.

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