

The Intellectual Impact of Strategic Leadership on the Efficiency of Implementing the Enterprise Resource Planning (ERP) System for Jordanian Industrial Companies - A Field Study

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Abstract

The study aimed to demonstrate the intellectual impact of strategic leadership on the efficiency of implementing the Enterprise Resource Planning (ERP) system for Jordanian industrial companies. The study population consisted of the (67) Jordanian industrial company. The questionnaires were distributed to the study sample of (24) companies, with (6) questionnaires for each company, from which the researcher retrieved (123) questionnaires, and after reviewing the retrieved questionnaires, it was found that there are (12) questionnaire that are not valid for statistical analysis. Thus, the number of questionnaires valid for analysis reached (111). For the purpose of analyzing the study data and testing hypotheses, the Statistical Package for Social Sciences (SPSS) program was used in the various statistical analyzes, which are descriptive statistics, and the internal consistency coefficient (Cronbach Alpha), (Kolmogorov-Smirnov Z) test and the (VIF) test were used to ensure that the existence of the problem of multiple linear relationships (multiple correlation). The study reached many results, the most important of which was the existence of a strong and statistically significant relationship to the intellectual impact of strategic leadership represented by (strategic direction, human capital development, ethical practices, and strategic control) on the efficiency of implementing the ERP system for Jordanian industrial companies. As for the most important recommendations, they are embodied in the necessity to increase the level of interest of the strategic leadership management, in the Jordanian public industrial companies, in the Enterprise Resource Planning (ERP) system applied to them, and to work on updating and developing it continuously, in a way that contributes to enhancing the ability of the built operations within it in meeting the needs of the various organizational processes in the company.

Key Words: Strategic Leadership: Enterprise Resource Planning (ERP) System: Jordanian Industrial Companies

1. Introduction

Most economic companies in all parts of the world, regardless of their sizes and activities, whether productive, industrial, service or commercial, strive to reach a high level of development in order to ensure the achievement of their main goal of survival and continuity, What guarantees this survival is gaining the confidence of the economic dealers related to the company, Also, gaining the confidence of the parties related to the company can only be achieved through full disclosure of information related to the company and all the challenges and obstacles it faces.

However, companies, in order to maintain their development and credibility towards their customers, must work to follow up the implementation of their established goals and compare what has been achieved with what has been planned, as well as identifying the reasons in order to rectify them and correct what can be corrected. This can only be achieved through the availability of strategic leaders with pioneering visions who try to correct their path if they do not follow the previously planned direction. Therefore, the leaderships should pay attention to everything new from technological developments to raise the efficiency of their production and control work. The most prominent manifestation of this advanced technology is the Enterprise Resource Planning system, or what is known as (ERP), which has been widely used by many companies, due to its idealism in coordination between many jobs in the company and facilitates communication operations and Processing for all operations, It also provides great protection for its total assets from misuse. Therefore, this study worked to demonstrate the impact of the strategic leadership in the Jordanian industrial companies on the efficiency of implementing the enterprise resource planning system in the company to reach institutional entrepreneurship at the local and global level.

2. Significance of the study

The study had dealt with a very important topic embodied by the impact of strategic leadership with its various dimensions on the effectiveness of the enterprise resource planning (ERP) system. The increase in the level of interest of the strategic leaderships in Jordanian public industrial companies contributing to the Enterprise Resource Planning

(ERP) system applied to them leads to enhancing the ability of the operations built within it for meeting the needs of the various organizational and productive processes in the company and the efficiency of its performance at the local and global level.

3. Problem of the study

The study problem is embodied in the following main and sub-questions:

The first main problem:

Is there an effect of the intellectual impact of the strategic leadership on the efficiency of implementing the Enterprise Resource Planning (ERP) system for Jordanian industrial companies? The following sub-problem questions are divided into:

The first sub problem:

Is there an effect of the strategic direction on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies?

The second sub-problem:

Is there an impact of human capital development on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies?

The third sub-problem:

Is there an effect of ethical practices on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies?

The fourth sub-problem:

Is there an effect of strategic control on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies?

The second main problem:

Are there statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to demographic variables?

The following sub-problems are divided into:

The first sub problem:

Are there statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the job title variable.

The second sub-problem:

Are there statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to years of work experience variable.

The third sub-problem:

Are there statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the scientific qualification variable.

The fourth sub-problem:

Are there statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the variable of scientific specialization.

The first main hypothesis:

H01: There is no effect of the intellectual impact of strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for Jordanian industrial companies. The following sub hypotheses are divided into:

The first sub-hypothesis (H0_1_1):

There is no impact of the strategic direction on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies

The second sub-hypothesis (H0_1_2):

There is no impact of human capital development on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies

The third sub-hypothesis (H0_1_3):

There is no impact of ethical practices on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies

The fourth sub-hypothesis (H0_1_4):

There is no impact of strategic control on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies

The second main Hypothesis (H₀_2) :

There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to demographic variables

The first sub-hypothesis (H₀_2-1)

There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the job title variable.

The second sub-hypothesis (H₀_2-2)

There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to years of work experience variable.

The third sub-hypothesis (H₀_2-3)

There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the scientific qualification variable.

The fourth sub-hypothesis (H₀_2-4)

There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the variable of scientific specialization.

4. The theoretical side of the study

The concept of strategic leadership: Strategic leadership is based on creativity and innovation in the search for new ideas, knowledge, contemporary visions and high-level capabilities in people and workers in the organization to achieve the desired goals through faith in human capabilities and mental energy to anticipate the future and anticipate the possibilities of its change. Where the strategic leadership is keen to attract creative administrative competencies and develop their capabilities to face problems in emergency circumstances, face future challenges and take into account the surrounding changes, which gives organizations the ability to define their future goals and areas of growth and its spread, Therefore, the strategic leadership is defined as:

The process of continuous improvement of all the central and service functions of the institution with the aim of developing the services provided to the beneficiaries through the formulation of a vision, a practical strategy, and a structure of the work and integration policy in order to train others to face the difficulties related to solving the daily problems stemming from adaptive and new generative work (Reed, 2005: 147).

But both (Sarfranz & Sarfranz, 2017: 41) believe that strategic leadership requires the ability to think continuously in order to analyze all the views and relationships that fall within the organizational boundaries, in order to achieve the prosperity and well-being of the organization continuously, and this can only be achieved when there are leaders who have a clear vision and an insightful understanding about the problem of complexity between the organization, stakeholders and the environment.

(Arikan & Enginoglu 2016: 1) states that strategic leadership is defined as an element of proactive visualization, strategic thinking, and working for the future of the organization, and that leadership represents the process of creating a vision and motivating employees, and forming strategies at the individual and organizational levels.

In the opinion of the researcher, this means that strategic leaders should be able, through their innovative and entrepreneurial thinking, to anticipate through trends as well as directions, and to imagine different scenarios with the available information that have large-scale networks which include consumers, partners and perceptions of competitors on current and future prospects.

The importance of strategic leadership: the importance is crystallized in all of the following (Al-Jubouri, Kazem, 2020, p. 257)

- 1- Draws the organizational culture in the organization alongside other variables, as the strategic leader may contribute to this through the method he adopts in the organized leadership, his administrative style, and the method of designing organizational structures, compensation of authorities, division and distribution of tasks in the behavioral and cultural rules and values that arise within the organization.
- 2- The strategic leadership lies in its consensual role between the needs of the different parties, as it seeks to satisfy all parties even if their desires are contradictory.
- 3- IT is considered the reason for the superiority of the organizations over others. Therefore, the traditional roles of leadership should be discarded, and adapt the strategic role that looks to the horizon and to the many roles within the organization.
- 4- IT forms the source of innovation and creativity, and this depends to a large extent on the creative cognitive abilities of the strategic leaders in their consensual role between the needs of the different parties, as they seek to satisfy all parties even if their desires are in conflict.

The difference between the dimensions of the strategic leadership and its capabilities: the dimensions of strategic leadership are embodied: in each of the following: (Al-Jubouri, Kazem, 2020, p. 285)

- 1- Defining the strategic direction.
- 2- Investment of strategic capabilities
- 3- Implementing regulatory control.
- 4- Development of human capital

As for the dimensions of the strategic leadership capabilities, they are embodied in the following: (Al-Abadi and Al-Amidi, 2020, p. 384)

- 1- Achieving ability.
- 2- Perception ability

- 3- Willingness to take the lead.
- 4- Possessing business acumen.

ERP system

Companies these days face difficulties in maintaining a competitive advantage, especially in the field of information and communication technologies that is due to the lack of integration of business procedures.

This complementarily is what enables organizations to benefit from customer data on one hand and enhance the flow of supply on the other hand, and this weakness may lead To a lean decision-making process and to a slow response to changes in the nature of the business environment, and here the necessity of integrating business procedures appears and this can be achieved through ERP systems (Chaushi et al., 2016).

Defining ERP system

(Muhammad and others, 2011) believe that ERP is a software package that includes functional models according to companies' activities, and as a whole it forms an internal operations and transactions engine that aims to achieve integration in processing the operational and strategic data of companies' activities.

However, both (Al-Obaidi and Ibrahim, 2017) see that the ERP system is a group of interconnected systems that operate as a unified integrated system with a unified database, and they communicate with each other as an integrated unit in all the company's divisions and departments, so that it can use and manage its information, material and human resources effectively and efficiently. (Seo, 2013) believes that end-user training is necessary in order to know the ERP system and how to use it, and therefore appropriate education and training for the end-user will increase the benefits of ERP and increase user satisfaction.

Based on the above, the researcher sees ERP as an advanced and modern leading information and technical management system that relies on an elaborate work mechanism which depends on linking all the main and subsidiary company departments with each other in a unified database that aims to provide appropriate information to all company branches, achieving integration at all levels . The company will thus be able to fulfill its desired goals and provide information to the decision-makers wherever their work center in the company is located and whenever it is needed, which by that ends up saving time, effort and cost.

Strategies for implementing the resource planning system EPR

There are two strategies for implementing resource planning in the organization and they differ from each other, each one of them has its pros and cons. The organization must choose the appropriate strategy, and they are : the big bang strategy and the incremental strategy.

(O'Leary , 2000) describes the Big Bang strategy in applying the ERP system as the strategy by which the entire system is implemented at all sites at the same time, and this requires the simultaneous implementation of multiple units, usually in three stages:

- First, all relevant processes and designs are selected (or developed) and implemented across the entire program.
- Second, all units are tested individually, followed by creating interfaces to connect all units
- Finally, the old system is shut down and the new system is started.

An incremental is one in which the software packages or modules are executed one by one or in the form of a group of units, often in one location at a time.

Factors for the success of implementing the ERP system (Chien et al., 2007) (Ifinedo, 2008)

- Organizational suitability of the resource planning system
- Adaptation of the system to suit business procedures
- Adaptation of business procedures to suit the system to be implemented
- Reluctance to change
- Satisfaction of end-user

Components of an Enterprise Resource Planning Systems (Salman & Khaled, 2020, p. 164)

- 1- Accounting system: The accounting system plays a fundamental role in the process of measuring and managing financial events and issuing reports that summarize all those operations in the organization through the quarterly financial statements and balances.
- 2- Supply Chain System: it aims to regulate the flow of materials through the organization by managing the planning and scheduling processes of suppliers' accounts, managing the supply chain and distribution to simplify the path their products pass from the supplier to the warehouse and finally to the customers
- 3- Material Management System: It is a system that includes a number of necessary tasks such as tracking the movement of material purchases by comparing the received materials with the required quantities according to the purchase orders, followed by the matching process with the registered invoice.
- 4- Human Resources Management System: This system includes all processes related to managing personnel affairs, salaries, training and transportation costs.

Therefore, the researcher believes that the success of the enterprise resource planning system requires strong strategic leadership and the commitment and participation of the higher management. The success of these systems depends on the presence of strategic people who have an entrepreneurial idea and are able to put a clear and convincing vision. The success of information systems also requires the presence of clearly defined goals that aim to satisfy the current and potential customers in the near future.

5. The practical side of the study

Study Population and Sample:

The study population consisted of (67) Jordanian industrial companies. The questionnaires were distributed to the study sample of (24) companies by (6) questionnaires for each company, from which the researcher retrieved (123) questionnaires, and after reviewing the retrieved questionnaires, it was found that there were (12) questionnaires that were not valid for statistical analysis, so the number of questionnaires valid for analysis has reached (111).

Test of validity and reliability of the study instrument:

The validity of the content of the instrument used in the study was verified by presenting it to a group of experienced and qualified faculty members and departments in companies to express opinions in each field of study and the drafting of paragraphs and the extent to which each paragraph relates to its field, as some questions have been amended and others deleted and new questions were added to comply with the proposals and observations of the arbitrators, and thus the study instrument (the questionnaire) has become in its final form consisting of (31) items distributed in 5 fields.

While the stability of the study instrument means the reliability and predictability of the results; That is, the extent of compatibility or consistency in the results of the questionnaire as it was applied more than once in similar circumstances. To calculate the stability of the study instrument, it was divided into six fields to measure the stability of each field and the instrument as a whole. The (Cronbach Alpha) test was used for the obtained answers of study sample. (Alpha) can also be interpreted as the coefficient of internal stability between the answers, and its high value indicates the degree of high stability. The statistically acceptable value for this measure is (60%) or more (Sekaran & Roger, 2013), and in other studies the statistically acceptable value is (70%) or more. It is clear from the results of the data analysis in Table No. (1) that the result of the stability of the study paragraphs is high.

Table No. (1) The internal stability coefficients (Cronbach alpha) for each field of the study instrument and for the instrument as a whole

Field	Paragraph number	Cronbach alpha
The Independent Variable: Strategic Leadership		
Strategic direction	5	94.2
Human capital development	6	91.8
Ethical practices	5	92.2
Strategic control	5	90.1
Strategic leadership as a whole	21	86.5
The dependent variable: enterprise resource planning system	10	91.1
The instrument as a whole	31	92.8

Table No. (1) shows that all the values of the Cronbach alpha coefficients were high and that the stability of the study paragraphs as a whole was high, reaching (92.8), which indicates that the study instrument has high reliability.

Normal distribution:

For the purpose of identifying the normal distribution of the sample data, the test (Kolmogorov-Smirnov Z) was applied to the fields of the study and for each independent and dependent variable of the study. The data follows the normal distribution if the probability of the test is less than 5% , Table No. (2) shows the test result :

Table (2) Results of application (Kolmogorov-Smirnov Z) test to all fields of study

variable	Kolmogorov-Smirnov Z	Statistical significance
The Independent Variable: Strategic Leadership		
Strategic direction	0.196	0.000
Human capital development	0.222	0.000
Ethical practices	0.184	0.000
Strategic control	0.203	0.000
The dependent variable: enterprise resource planning system	0.146	0.000

Table No. (2) shows that the value of the test (Kolmogorov-Smirnov Z) for the study variables ranged between (0.146-0.222), which are acceptable values at the level of significance (0.05), where it appears that the probability ratios for all answers were less than (0.05) which is the level adopted in The statistical treatment of this study *. All statistical values have a significance of less than (0.05), thus making sure that the distribution is a normal distribution for all variables.

*: SPSS (version 25) was used for data analysis.

Test for correlation between independent variables

Table No. (3) shows the value of (VIF) and (Tolerance)

The first main hypothesis

The (VIF) test was relied upon to ensure that there is no problem of multiple correlation, because it is considered a problem as one of the problems facing the statistical estimation of the regression coefficients. Table (3) shows the results of the test for VIF:

Field	VIF	Tolerance
The Independent Variable: Strategic Leadership		
Strategic direction	1.072	0.933
Human capital development	1.136	0.880
Ethical practices	1.172	0.853
Strategic control	1.099	0.910

The table above shows that there is no multiple correlation problem between the independent variables being less than (5), thus accepting the level of variance in each of the independent variables.

Descriptive analysis of the study variables:

After the researchers verified the validity of the data for statistical analysis and reliance on them, the other part comes, in which an analysis of the study variables is described, its hypotheses are tested, and their results are extracted as follows:

Table No. (4) shows the arithmetic averages, standard deviations, and t-value of the independent and dependent study variables

variable	Mean	standard deviations	Significance level	t-value	Statistical significance
The Independent Variable: Strategic Leadership					
Strategic direction	4.178	0.638	High	19.448	0.000
Human capital development	3.979	0.646	High	15.968	0.000
Ethical practices	4.168	0.664	High	18.536	0.000
Strategic control	4.121	0.589	High	20.041	0.000
The dependent variable: enterprise resource planning system	4.080	0.560	High	20.322	0.000

6. Results

Test the hypotheses of the study and discussion:

The first main hypothesis:

H01: There is no effect of the intellectual impact of strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for Jordanian industrial companies

To test this hypothesis, multiple regression analysis was used to identify the relationship between the intellectual impact of strategic leadership represented by (strategic direction , human capital development, ethical practices, strategic control) on the efficiency of implementing ERP system for Jordanian industrial companies. Table No. (5) shows That relationship:

Independent variable: human capital development	β -value	t-value	Statistical significance
Constant	-0.794	-2.166	.0330
Strategic direction	0.376	7.087	.0000
Human capital development	0.293	5.413	.0000
Ethical practices	0.228	4.260	.0000
Strategic control	0.288	4.949	.0000
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F -value	46.601	Statistical significance for F	0.000
Adj. R ²	%62.4	R ²	% 63.7
Durbin-Watson	2.106	Views	111

Table No. (5) shows the existence of a strong and statistically significant relationship for the first main hypothesis:

the intellectual impact of strategic leadership represented by (strategic direction , human capital development, ethical practices, strategic control) on the efficiency of implementing ERP system for Jordanian industrial companies, Where the value of F was (46.601), with a statistical significance of (0,000), and it reached Adj. R2 (62.4%), which represents the strength of the influence of the independent variable (of the intellectual impact of strategic leadership) on the dependent variable (enterprise resource planning system), thus we reject the first main null hypothesis, and accept the alternative hypothesis.

Results related to the first sub-hypothesis:

H0_1_1: There is no impact of the strategic direction on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies

The result of the multiple regression showed the existence of a direct relationship between the strategic direction in the efficiency of implementing ERP system for Jordanian industrial companies, and its statistically significant, as the result indicates that increasing the independent variable by 1% leads to an increase of the dependent variable by (0.376) units, and thus we reject the null hypothesis We accept the alternative hypothesis.

Results related to the second sub-hypothesis:

H0_1_2: There is no impact of human capital development on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies

The result of the multiple regression showed the existence of a direct relationship between the development of human capital in the efficiency of implementing ERP system for Jordanian industrial companies , and its statistically significant, as the result indicates that increasing the independent variable by 1% leads to an increase of the dependent variable by (0.293) units, and thus we reject The null hypothesis and we accept the alternative hypothesis.

Results related to the third sub-hypothesis:

H0_1_3: There is no impact of ethical practices on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies

The result of the multiple regression showed the existence of a direct relationship between ethical practices in the efficiency of implementing ERP system for Jordanian industrial companies , and its statistically significant as the result indicates that increasing the independent variable by 1% leads to an increase of the dependent variable by (0.228) units, thus we reject the null hypothesis We accept the alternative hypothesis.

Results related to the fourth sub-hypothesis:

H0_1_4: There is no impact of strategic control on the efficiency of implementing the Enterprise resource planning (ERP) system for Jordanian industrial companies

The result of the multiple regression showed that there is a direct relationship between the strategic in the efficiency of implementing ERP system for Jordanian industrial companies, and its statistically significant, as the result indicates that increasing the independent variable by 1% leads to an increase of the dependent variable by (0.288) units, thus we reject the null hypothesis We accept the alternative hypothesis.

Results related to the second main hypothesis:

H₀2: There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to demographic variables

Results related to the first sub-hypothesis: (H₀ 2-1)

There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the job title variable.

Table No. (6): The results of the ANOVA-test for job title

variable	Mean						F value	Statistical significance
	General Manager / Deputy General Manager	Financial Manager	Production Manager	Manager of Supplies and Procurement	Sales manager	IT Manager		
Strategic direction	4.300	4.133	4.078	4.413	4.179	4.133	.609	.693
Human capital development	4.229	3.931	4.080	3.698	4.070	3.967	1.125	.352
Ethical practices	4.275	4.092	4.348	4.150	4.116	3.933	.808	.547
Strategic control	4.000	4.192	4.061	4.325	4.021	4.000	.770	.573
Enterprise resource planning system	4.275	4.058	4.083	4.025	4.026	4.027	.264	.931

The results in Table (6) indicate that there are no statistically significant differences for the job title variable on all variables, where the statistical significance of the F value was greater than 5%. With this result, we accept the null hypothesis that states "There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the job title variable." thus rejecting the alternative hypothesis.

Results related to the second sub-hypothesis: (H₀ 2-2)

There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to years of work experience variable.

Table No. (7): The results of the ANOVA-test for years of work experience

variable	Mean						F value	Statistical significance
	Less than 5 years	From 5 years to less than 10 years	From 10 years to less than 15 years	From 15 years to less than 20 years	From 20 years to less than 25 years	25 years and more		
Strategic direction	4.320	4.382	4.100	3.993	4.176	4.333	1.039	.399
Human capital development	4.367	3.833	4.050	3.862	3.975	4.095	.800	.552
Ethical practices	4.480	4.273	4.100	4.221	4.030	4.229	.630	.677
Strategic control	4.200	4.145	4.260	4.097	4.109	4.057	.185	.968
Enterprise resource planning system	4.420	4.309	4.120	3.966	4.024	4.081	1.045	.396

The results in Table (7) indicate that there are no statistically significant differences for the years of work experience variable on all the variables for the study, where the statistical significance of the F value was greater than 5%. With this result, we accept the null hypothesis that states, “There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to years of work experience variable.” and we reject the alternative hypothesis .

Results related to the third sub-hypothesis: (H_{0_2-3})

There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the scientific qualification variable.

Table No. (8): The results of the ANOVA-test for scientific qualification

variable	Mean					F value	Statistical significance
	High School	Higher Diploma	BSc	MSc	PhD		
Strategic direction	0.000	3.800	4.193	4.280	3.900	.817	.487
Human capital development	0.000	4.167	3.944	4.183	4.083	.539	.657
Ethical practices	0.000	4.333	4.157	4.060	4.433	.459	.712
Strategic control	0.000	4.333	4.101	4.140	4.267	.277	.842
Enterprise resource planning system	0.000	4.133	4.053	4.230	4.217	.422	.737

The results in Table (8) indicate that there are no statistically significant differences for the scientific qualification variable on all the variables, where the statistical significance of the F value was greater than 5%. With this result, we accept the null hypothesis that states “There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of

implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the scientific qualification variable.” Thus, rejecting the alternative hypothesis.

Results related to the fourth sub-hypothesis: (H_{0_2-4})

There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the scientific specialization variable.

Table No. (9): The results of the ANOVA-test for scientific specialization

Variable	Mean							F value	Statistical significance
	Accounting	Business Administration	Economy	Banking and Financial Sciences	marketing	Computer Science	Computer Engineering		
Strategic direction	4.142	4.196	3.800	4.500	4.200	4.200	3.700	.402	.876
Human capital development	3.958	3.991	4.417	3.417	3.905	4.051	3.417	.685	.662
Ethical practices	4.158	4.274	4.500	3.700	3.886	3.969	3.700	1.046	.400
Strategic control	4.158	4.133	4.500	3.700	4.171	3.969	4.200	.463	.834
Enterprise resource planning system	4.046	4.111	4.500	3.600	3.957	4.092	3.600	.758	.605

The results in Table (9) indicate that there are no statistically significant differences for the scientific specialization variable on all the variables, where the statistical significance of the F value was greater than 5%. With this result, we accept the null hypothesis that states “There are no statistically significant differences between the averages of the respondents of the study sample on the effect of the intellectual impact of the strategic leadership on the efficiency of implementing the enterprise resource planning (ERP) system for the Jordanian industrial companies attributed to the scientific specialization variable..” thus, we reject the alternative hypothesis.

7. Conclusions and Recommendations

Conclusions:

- 1- The existence of a strong and statistically significant relationship to the intellectual impact of strategic leadership represented by (strategic direction, human capital development, ethical practices, and strategic control) on the efficiency of implementing the ERP system for Jordanian industrial companies
- 2- The existence of a direct and statistically significant relationship between the strategic direction in the efficiency of implementing ERP system for Jordanian industrial companies
- 3- The existence of a direct and statistically significant relationship between the development of human capital in the efficiency of implementing ERP system for Jordanian industrial companies
- 4- The existence of a direct relationship between ethical practices in the efficiency of implementing ERP system for Jordanian industrial companies ,and of a statistical significance.
- 5- The existence of a direct and statistically significant relationship between the strategic control in the efficiency of implementing the ERP system for Jordanian industrial companies.
- 6- The absence of statistically significant differences for the job title variable on all variables, where the statistical significance of the F value was greater than 5%.
- 7- The absence of statistically significant differences for the years of work experience variable on all the variables of the study, where the statistical significance of the F value was greater than 5%.
- 8- The absence of statistically significant differences for the scientific qualification variable on all the variables, where the statistical significance of the F value was greater than 5%.

- 9- The absence of statistically significant differences for the variable of scientific specialization on all the variables, where the statistical significance of the value of F was greater than 5%.

Recommendations:

1. The strategic leaderships in industrial companies must pay attention to providing advanced systems such as a resource planning system in order to be a strong point in combating competitors from industrial companies at the local and global levels.
2. The necessity for strategic leaders to be smart in order to be able to meet customer requirements and gain an appropriate market share among competitors, which increases their financial resources, and this can only be achieved by having pioneering resource systems such as the ERP systems.
3. The necessity for strategic leaders to seek to enhance the agility and optimize their human resources, which would contribute to enhancing their high industrial performance at the local and global level by having pioneering systems such as ERP systems.
4. The need for industrial companies to pay attention to choosing their strategic leaders according to the strategic capabilities that enable them to make the appropriate selection for these leadership positions.
5. The need for the Strategic Leadership Department in the Jordanian industrial companies to adopt all methods and procedures that contribute to clarifying the different roles of all its members within the framework of the facility's resource system in a clear and written manner.
6. Increasing the level of interest of the Strategic Leadership Department in the public joint-stock Jordanian industrial companies with the Enterprise Resource Planning (ERP) system applied to them, and working on updating and developing it continuously, in a way that contributes to enhancing the ability of the operations built within it to meet the needs of the various organizational processes in the company.

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