

# Learning Organization Impact on Internal Intellectual Capital Risks: An Empirical Study in the Jordanian Pharmaceutical Industry Companies

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Received: August 15, 2016

Accepted: August 30, 2016

Online Published: September 20, 2016

doi:10.5539/ibr.v9n10p176

URL: <http://dx.doi.org/10.5539/ibr.v9n10p176>

## Abstract

The intellectual capital with its different dimensions (Social Capital, Structural Capital, Human Capital, Creative Capital and Relational Capital) is a part of the strategic assets, which helps organizations to survive in the changing globalization environment. The intellectual capital is exposed to many risks at the level of internal environment, which require to be studied and to know their origins and diagnose their causes in order to dealing with its. The continuous learning, supporting leadership, organizing social activities that support self-learning and collective learning that contribute to the enhancement of knowledge leading to generate creativity as a part of the most important handling factors of the intellectual capital risks. This study aims to clarify the contribution mechanism of learning organization to dealing with internal intellectual capital risks. As well as, making recommendations to the decision-makers in this sector, which would contribute to the development of their organizations and help to convert them into learning organizations, and contribute to achieve their objectives efficiently and effectively. Four companies were chosen from (24) companies as a sample for this study. This study found a set of results focusing on that the learning organization can work on dealing with of intellectual capital risks with its different kinds through practicing the philosophy of learning organization. The study also found a set of recommendations that serve the purpose of the study.

**Keywords:** learning organization, Intellectual capital, social capital, structural capital, human capital, creative capital, relational capital, learning, training, developing and knowledge

## 1. Introduction

The intellectual capital is a part of strategic assets that help organizations to survive in the changing globalization environment (Ahangar, 2011). Despite the growing interest by researchers, academics and business organizations in the subject of intellectual capital. But the studies and scientific indicators and evidences confirm that the intellectual capital is exposed to many risks at the level of internal environment, which has imposed the need to study these risks, in order to know their origins and diagnose their causes for the purpose of dealing them from the organizations (Alnidawi, 2013).

When researchers reviewed the accurate scientific researches and theoretical literature on the subject, it appears that there are a set of factors dealing with these risks, mainly the continuous learning, leadership supporting and organizing social activities that support self and collective learning that contribute to enhance knowledge leading to generate creativity and that the managing philosophy contributing to provide these factors is the philosophy of the learning organization (Alexiou, 2005).

The Jordanian pharmaceutical companies is a sector that has a significant role in the Jordanian economy, and this sector needs the continuous development in order to keep pace with the developments happening in the world linked locally, regionally and internationally to this sector, so this study will answer the main question: (Is there a statistically significant impact of the learning organization to deal with the internal intellectual capital risk (social capital, structural capital, human capital, creative capital and relational capital) in the sector of Jordanian pharmaceutical industry companies)?

A set of objectives related to this study was identified based on this question, including the definition of the learning organization, intellectual capital and clarification of the mechanism by which learning organization contributes to deal with the internal intellectual capital risks, as well as, making recommendations to the decision-makers in the sector, which would contribute to the development of their organizations, and help to convert them into learning organizations and contribute to achieve their objectives, efficiently and effectively.

This study is also, characterized by its scientific importance, as it provides a scientific value-added to researchers and academics in the context of this subject. In regard to the economic importance of the study, it lies in the deal with internal intellectual capital risks helping in the construction of new relationships with customers and attract new customers, which will reflect positively on the organization growth and expansion their market share , also, improve and increase its current and future profits and strengthen its competitive position.

## 2. Methodology of the Study

### 2.1 Model of Study

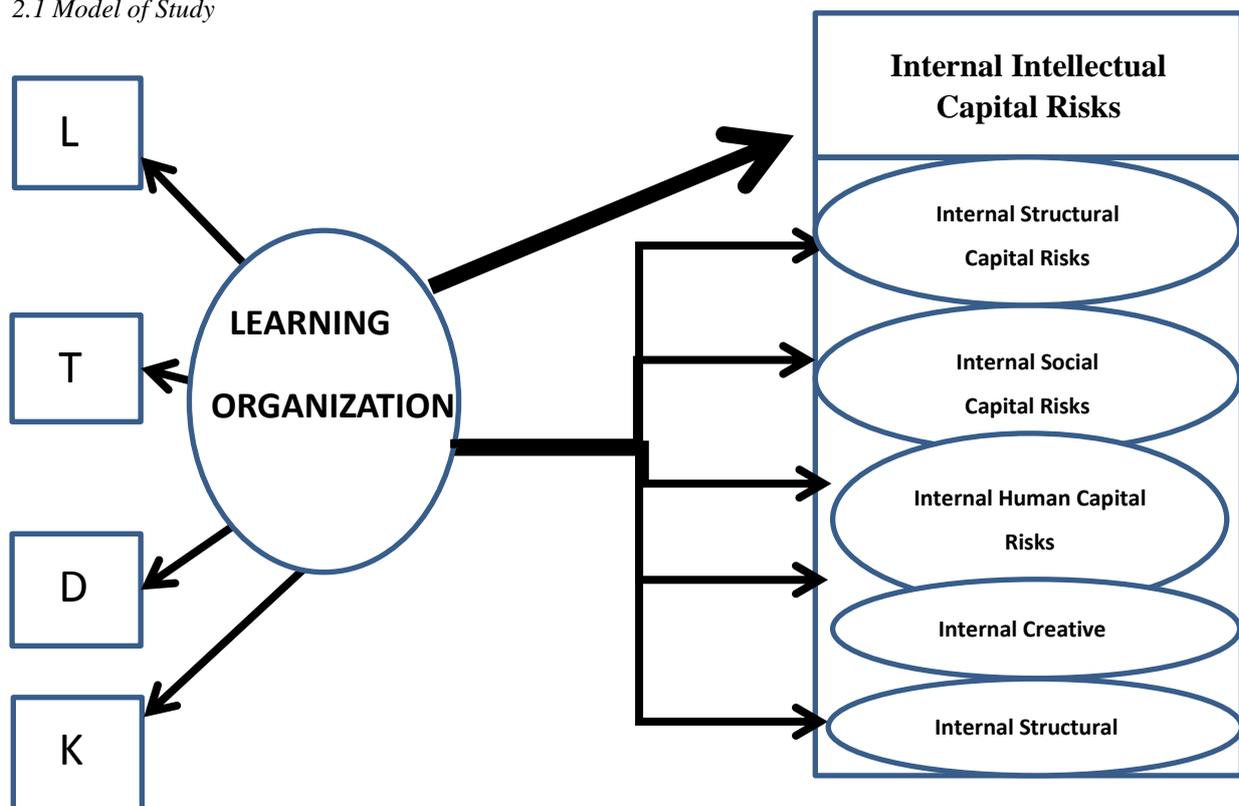


Figure 1. Model of Study

Reference: prepared by researchers

### 2.2 Hypotheses of the Study

Hypotheses of this Study have been formulated according to the general framework and model of the study as the following:

Ho1: There is a statistically significant impact of the learning organization on the internal intellectual capital risk (social capital, structural capital, human capital, creative capital and relational capital) in the Jordanian pharmaceutical industry companies.

The following sub-hypotheses are ramified from this hypothesis:

Ho1-1: There is a statistically significant impact of the learning organization on the internal social capital risk in the Jordanian pharmaceutical industry companies.

Ho1-2: There is a statistically significant impact of the learning organization on the internal structural capital risk in the Jordanian pharmaceutical industry companies.

Ho1-3: There is a statistically significant impact of the learning organization on the internal Human capital risk

in the Jordanian pharmaceutical industry companies.

Ho1-4: There is a statistically significant impact of the learning organization on the internal creative capital risk in the Jordanian pharmaceutical industry companies.

Ho1-5: There is a statistically significant impact of the learning organization on the internal relational capital risk in the Jordanian pharmaceutical industry companies.

### 2.3 Population and Sample of the Study

The population of the study is represented by all of the Jordanian Pharmaceutical Industry Companies amounted to (24) companies, where (4) main companies have been selected as a sample of the study and (200) questionnaires were distributed to the employees in these companies by 50 questionnaires for each company. The following table clarifies that:

Table 1. Number of distributed questionnaires

| Name of the Company                          | Number of distributed questionnaires |
|--|--------------------------------------|
| Amman Pharmaceutical Industries Company      | 50                                   |
| Arab Pharmaceutical Manufacturing Company    | 50                                   |
| Hayat Pharmaceutical Industries Company      | 50                                   |
| United Pharmaceuticals Manufacturing Company | 50                                   |
| Total  | 200                                  |

As for the used statistical methods, the Statistical Package for Social Sciences (SPSS) has been used as it serves the study objectives.

## 3. Theoretical Framework

### 3.1 Learning Organization

The subject of learning organization has earned the attention of a lot of thinkers and researchers (Bontis, 2002) to the fact that the philosophy of learning organization is one of the modern methods that forces many of the traditional organizations to convert into a learning organization. The researchers have used synonym terms for the learning organizations including (knowing organization, thinking organization, and purposeful organization) (Lozano, 2015; Holt, and Harris, 2007). The learning organization is defined by a set of definitions, but the definition that serves the objectives of this study is the following: (Is the organization that works to create, exchange and transfer knowledge, according to the reciprocal, participatory and complementary relationships which leading to modify its behavior, for starting to collective learning , development of the existing thinking patterns, creation of new thinking patterns and development of creativity to achieve adaptation, change and development, as well as achieving the collective aspirations and strategic objectives) (Bryan, 2009) .

The learning organization is characterized by a set of strategic characteristics represented in (common educational vision, adoption of diversified learning program , developing strategies, and monitoring of environmental variables), as well as administrative characteristics being represented in (Supportive leadership of learning, promoting the concept of self-directed learning, and the concept of collective learning in addition to the continuous learning). As for the organizational characteristics are represented in (organizational design tools, self-management teams, organizational flexible structure and open communications), finally the cultural characteristics that are (providing moral framework for the organizational and learning culture, provide a supportive environment for the organizational learning) (Lozano, 2015; Bryan, 2009). The learning organizations tend to formulate their strategies to be distinct from other traditional organizations. Among the most prominent of these strategies (organizational thinking strategy, organizational education strategy, leadership strategy, build and support the learning teams strategy, knowledge management strategy, dealing with the mental models strategy, developing personal empowerment strategy, individual and collective learning strategy, strategy for the development of modern modes of thinking) in addition to a set of models that focus on (organizational thinking, common vision, collective learning, participation, leadership, dialogue, motivation and empowerment (Yang, et al., 2004).

### 3.2 Intellectual Capital

The intellectual capital is a modern concept, which began in the nineties of the last centuries, the researchers and writers multiplied its own concepts, according to their attitudes, whether economic, administrative or accounting. The concept that serves the objectives of this study is the following ( The intellectual capital is a combination of cumulative total of the knowledge, talents, skills, substantive competencies, creative capabilities, internal and external relations and organizational cultures that can be invested to create wealth and value to achieve the competitive advantage (Dobni, 2011). The researchers have agreed on the substance and importance of the

intellectual capital and indicated that the intellectual capital consists of several dimensions interacting with each other in order to, create a value for the organization and disagreed on the classifications of these dimensions, according to their interests and the background of their competences. The dimensions that serve the objectives of this study are the following, (social capital, structural capital, human capital, creative capital, and relational capital). (Basuki, 2012). The intellectual capital is characterized by a group of characteristics which represented in, first: behavioral characteristics represented in the following: (initiative, ability to take decisions, perseverance, high self-confidence, openness to third parties). Second: organizational characteristics represented in the following: (flexible organizational structure, decentralization, administrative levels, and informal relationships). Third: professional characteristics embodied in (attention to the organized education, distinction, high and varied skill). (Makki & Lodhi, 2008). In spite of the attention of the researchers, academics and business organizations to the intellectual capital, but it faces many internal risks related to the organization environment, culture and its leadership in addition to, its association with the employees' capacities and skills. Also, that the knowledge generation approach is a way to use for achieving creativity in organization. (Alnidawi, 2013). These risks are represented by the capital types, as the following:

First: The structural capital risks that include the organizational obstacles within the organization, which reflect negatively on its performance as a whole and represented in the incompatible organizational vision with the principle of learning continuity and pyramidal organizational culture supporting individual action, without the collective action and non-supporting organizational leadership to the employees' self-development, in addition to, the organizational structures incompatible with the employees aspirations (Rastogi, 2010).

Second: The internal social capital risks, which represented in the barriers related to the issues and implications of human relations in the social work environment, such as, the communication limitations and internal conflicts between the employees in the organization (Ibrahim, 2011).

Third: The internal human capital risks, which represented in the obstacles related to the employees knowledge to their skills and capabilities, which indirectly reflected on their tasks performance such as, the progress of employees' skills and experiences in the organization and the employees knowledge obsolescence in connection with the incapacity to generate the knowledge collectively (Alnidawi, 2013).

Fourth: The internal creative capital risks which influencing negatively on the employees motivation to present new ideas for the organizational creativity, in addition to psychological barriers that related to the creative process (Rastogi, 2010).

Fifth: The internal relational capital risks which embodied in the obstacles related to the organization capabilities to constitute positive relations with the clients and represented in the traditional vision of the organization relations with their customers, and the incapacity to determinate the clients' needs and desires accurately in addition to, the workers fear to deal boldly with the organizational change for keeping pace with alteration in the customers wishes (Chin, et al., 2015).

#### **4. Linking Mechanism between the Study Variables**

The linking mechanism between the study variables is represented by that the learning organization constitutes one of the most important factors helping to handle the Internal Intellectual capital risks, where the learning organization carry out the risk handling related to the incompatible organizational vision with the principle of organizational learning sustainability by setting a new vision based on participative drafting that grant freedom to employees at all administrative levels in the dialogue process related to the organizational learning (Swee, 2003), where this vision is understood, common and believes in learning and its positive role in addition to, demonstrate this vision in the form of plans and programs that support learning process (Hussein, 2012). But the risk related to the organizational culture that support isolated individual action without the collective action, the learning organization carry out creation of new organizational culture that support, encourage collective action and promote the spirit of teamwork and collective responsibility leading to create confidence between the organization and their employees themselves, which contributes to the creation of a work environment featured with the desire for collective action (Rodin, 2012). As for as, the risk aspect related to the organizational leadership non-supporting the development of employees, the leadership in the learning organization operate to exercise a series of roles represented in learning roles and direct the employees to follow the environment analysis strategy (SWOT) that helps the employees to achieve auto-communication in order to create a mental image that helps to identify the strengths and weaknesses they have (Basuki, 2012), and contributing to build incentive strategy characterized by clarity, comprehensiveness, justice, promote positive motivation and handle the negative aspects associated with self-development (Buckley & Kathy, 2008). Regarding the risk on the organizational structures that do not fit with the employees aspirations, the learning organization operate to

handle this risk to design a flexible organizational structures, and operate to remove barriers, provide effective communication channels for the exchange of knowledge information without any obstacles, also, contribute to grant employees freedom of action to complete their work and provide training programs to give them a set of new information and knowledge that helps in the development of employees and achieve the organization objectives efficiently and effectively (Mehralian, et al., 2013).

With regard to the learning organization handling of the internal social capital risk, it operates to face the official internal communications risk between leaders and their employees through the application of the open communications organizational strategy, which based on a set of policies that contribute to the provision of easy and clear communication channels and give employees more freedom to successfully express themselves , also, it is working to create a positive relationship between the leaders and employees in the organization (Swee, 2003; Basuki, 2012). Regarding what is associated with the risk of communications limitations between employees themselves in the organization, we can see that the learning organization operate on the creation of the administrative communications department for the purpose in order to find a working relationship between the employees and the creation of the successful means of communication contributing to establish human interaction instead of technology interaction which will reflect positively on the employee's work relations in the organization (Olariu, 2011). On the other hand, the risk on the internal conflicts handling between employees, the learning organization operate to make an organizational balance based on strategies (Yang, et al., 2004) through make the roles, powers and authorities are clarified, which achieve integration and harmony to prevent conflicts (MaKKi, et al., 2008) Regarding of what is associated with risks handling related to the human capital represented in the risk obsolescence of employees' capabilities and skills, the learning organization operates to use the open training strategy that includes a set of training programs that contribute to make change in the new and advanced methods of work (AleXiou, 2005). Regarding the aspect of risk handling of knowledge obsolescence among the employees, the learning organization is working to create learning and interactive climates by adoption of the work teams strategy based on approved social acceptance strategy that will help to collectively generate knowledge, through a set of learning and interactive methods such as, (brainstorming method, fishbone method and the Delphi method). (Bryan, 2009).

The learning organization handling of the internal creative capital risk operates to handle the risk related to promote business routine rather than creative works through the empowerment strategy adoption and its applications including (Smart) style, which adopts on support, motivation and creative employees through granting of authority and confidence in the organization (Holt et al., 2007). As for the risk related to the cognitive obstacles, the learning organization is working to adopt intellectual flexibility strategy by which the organization operates to provide training programs linked to the modern thinking strategies represented in (the critical thinking, creative thinking, mental models, organized thinking, and the six thinking hats strategy) (Omerzel, et al., 2012). But the risk related to the psychological risks, the organization adopts the persuasion strategy, which helps the organization to achieve creativity between their employees. (Kasasbeh, et at, 2010).

Finally, the learning organization handling of the relational capital risk, where the organization must operates to handle the risk associated with the traditional vision of the organization relationship with its customers that requires the organization adoption of the client leadership pattern based on customer (Najm, 2010), but the risk concerning the inability to determine the needs and desires of the clients, it requires the adoption of scientific research strategy and communication networks strategy that requests brainstorming sessions holding to discuss the information and take the appropriate decision to determine the customers' needs Strategy (Alnidawi, 2015). And finally, handling the risk related to employees apprehension to confrontation the organizational changes to keep pace with the developments and changes in the market place and customer needs requires the adoption of change leadership, which leads to reassure employees and remove their fears with focusing on a set of rehabilitative training programs that help making employees abreast of the change process to achieve the positive results.

## 5. Data Analysis and Results

For data analysis, and testing the hypotheses of the research. Simple regression and multiple regression will be used as follows:

\* Main Hypothesis Test:

H1: There is a statistically significant impact of the learning organization on the internal intellectual capital risk in the Jordanian pharmaceutical industry companies.

Table 2. Results of analysis for the first Main Hypothesis Test

| Correlation Coefficient | Determination Coefficient | Beta Coefficient | Value | Signification |
|-------------------------|---------------------------|------------------|-------|---------------|
| R                       | R2                        | B                | F     | Sig           |
| 0.55                    | 0.30                      | - 0.55           | 28.82 | 0.00          |

It is appeared through the above table that the Correlation Coefficient value for the impact of the learning organization on the internal intellectual capital risk in the Jordanian pharmaceutical industry companies amounted to (0.55) and the value of (F) amounted to (28.82), which is significant at the level of (0.05) or less and thus the hypothesis is accepted with its established formulation. Also it turned out that the beta value is of (-0.55), which reflects that the higher practice of the learning organization philosophy, the lower internal intellectual capital risk. The results indicate that the determination value is of (0.30), which reflects that its rate average from the explained variation is due to the learning organization and (0.70) of the unexplained variation is due to other factors.

\* First sub-hypothesis test:

H1-1: There is a statistically significant impact of the learning organization on the internal structural capital risk in the Jordanian pharmaceutical industry companies.

Table 3. Results of analysis for the First Sub-Hypothesis Test

| Correlation Coefficient | Determination Coefficient | Beta Coefficient | Value | Signification |
|-------------------------|---------------------------|------------------|-------|---------------|
| R                       | R2                        | B                | F     | Sig           |
| 0.47                    | 0.22                      | - 0.47           | 96.07 | 0.00          |

It is appeared through the above table that the Correlation Coefficient value for the impact of the learning organization on the internal structural capital risk in the Jordanian pharmaceutical industry companies amounted to (0.47) and the value of (F) amounted to (96.07), which is significant at the level of (0.05) or less and thus the hypothesis is accepted with its established formulation. Also it turned out that the beta value is of (-0.47), which reflects that the higher practice of the learning organization philosophy, the lower internal structural capital risk. The results indicate that the determination value is of (0.22), which reflects that its rate average from the explained variation is due to the learning organization and (0.78) of the unexplained variation is due to other factors.

\* Second sub-hypothesis test:

H1-2: There is a statistically significant impact of the learning organization on the internal social capital risk in the Jordanian pharmaceutical industry companies.

Table 4. Results of analysis for the Second Sub-Hypothesis Test

| Correlation Coefficient | Determination Coefficient | Beta Coefficient | Value | Signification |
|-------------------------|---------------------------|------------------|-------|---------------|
| R                       | R2                        | B                | F     | Sig           |
| 0.39                    | 0.15                      | - 0.39           | 8.31  | 0.00          |

It is appeared through the above table that the Correlation Coefficient value for the impact of the learning organization on the internal social capital risk in the Jordanian pharmaceutical industry companies amounted to (0.39) and the value of (F) amounted to (8.31), which is significant at the level of (0.05) or less and thus the hypothesis is accepted with its established formulation. Also it turned out that the beta value is of (-0.39), which reflects that the higher practice of the learning organization philosophy, the lower internal social capital risk. The results indicate that the determination value is of (0.15), which reflects that its rate average from the explained variation is due to the learning organization and (0.85) of the unexplained variation is due to other factors.

\* Third sub-hypothesis test:

H1-3: There is a statistically significant impact of the learning organization on the internal human capital risk in the Jordanian pharmaceutical industry companies.

Table 5. Results of analysis for the Third Sub-Hypothesis Test

| Correlation Coefficient | Determination Coefficient | Beta Coefficient | Value | Signification |
|-------------------------|---------------------------|------------------|-------|---------------|
| R                       | R2                        | B                | F     | Sig           |
| 0.60                    | 0.36                      | - 0.60           | 40.70 | 0.00          |

It is appeared through the above table that the Correlation Coefficient value for the impact of the learning organization on the internal human capital risk in the Jordanian pharmaceutical industry companies amounted to (0.60) and the value of (F) amounted to (40.70), which is significant at the level of (0.05) or less and thus the hypothesis is accepted with its established formulation. Also it turned out that the beta value is of (-0.60), which reflects that the higher practice of the learning organization philosophy, the lower internal human capital risk. The

results indicate that the determination value is of (0.36), which reflects that its rate average from the explained variation is due to the learning organization and (0.64) of the unexplained variation is due to other factors.

\* Fourth sub-hypothesis test:

H1-4: There is a statistically significant impact of the learning organization on the internal creative capital risk in the Jordanian pharmaceutical industry companies.

Table 6. Results of analysis for the Fourth Sub-Hypothesis Test

| Correlation Coefficient | Determination Coefficient | Beta Coefficient | Value | Signification |
|-------------------------|---------------------------|------------------|-------|---------------|
| R                       | R2                        | B                | F     | Sig           |
| 0.63                    | 0.37                      | - 0.63           | 64.45 | 0.00          |

It is appeared through the above table that the Correlation Coefficient value for the impact of the learning organization on the internal creative capital risk in the Jordanian pharmaceutical industry companies amounted to (0.63) and the value of (F) amounted to (64.45), which is significant at the level of (0.05) or less and thus the hypothesis is accepted with its established formulation. Also it turned out that the beta value is of (- 0.63), which reflects that the higher practice of the learning organization philosophy, the lower internal creative capital risk. The results indicate that the determination value is of (0.37), which reflects that its rate average from the explained variation is due to the learning organization and (0.63) of the unexplained variation is due to other factors.

\* Fifth sub-hypothesis test:

H1-4: There is a statistically significant impact of the learning organization on the internal relational capital risk in the Jordanian pharmaceutical industry companies.

Table 7. Results of analysis for the Fifth Sub-Hypothesis Test

| Correlation Coefficient | Determination Coefficient | Beta Coefficient | Value | Signification |
|-------------------------|---------------------------|------------------|-------|---------------|
| R                       | R2                        | B                | F     | Sig           |
| 0.50                    | 0.25                      | - 0.50           | 44.92 | 0.00          |

It is appeared through the above table that the Correlation Coefficient value for the impact of the learning organization on the internal relational capital risk in the Jordanian pharmaceutical industry companies amounted to (0.50) and the value of (F) amounted to (44.92), which is significant at the level of (0.05) or less and thus the hypothesis is accepted with its established formulation. Also it turned out that the beta value is of (- 0.50), which reflects that the higher practice of the learning organization philosophy, the lower internal relational capital risk. The results indicate that the determination value is of (0.25), which reflects that its rate average from the explained variation is due to the learning organization and (0.75) of the unexplained variation is due to other factors.

## 6. Conclusions of the Study

This research investigated the influence the impact of the learning organization on internal intellectual capital risk (structural capital, social capital, human capital, creative capital and relational capital) in the sector of Jordanian pharmaceutical industry companies. The research finding indicated that the learning organization can dealing with the intellectual capital risk through exercising the learning organization philosophy, where the increased use of the learning organization philosophy leads to the reduction of the intellectual capital risk in the organization. However, the learning organization helps to dealing with various types of risks of intellectual capital through an increase in using the philosophy of learning organization applications which leads to, reduce or end the various types of risks of intellectual capital, such as (structural capital risk, social capital risk, human capital risk, creative capital risk, relational capital risk).

## 7. Recommendations of the Study

According to the conclusions of the study, some future recommendations may be suggested .To increase in using and exercising the learning organization philosophy to dealing with the intellectual capital risk, we take the measures as follows:

First, build a participative organizational vision supporting the learning process and its sustainability.

Second, supporting and promoting organizational culture for the collective and team spirit work and focusing of collective responsibility in the organization.

Third, administration adoption of new roles represented in the educational and developmental roles.

Fourth, the administration adoption of modern and flexible organizational structures for the purpose of helping employees to exchange knowledge, experiences and information without obstacles, and follow the open

communications organizational strategy.

Fifth, create organizational balance and create an organizational unit for administrative communications to reinforce the communication and exchange of information with create learning and interactive climates and adopt applicable and training methods that contribute to transfer experiences, knowledge and information among the employees.

Sixth, adopt strategies operating to reinforce the employees' empowerment process, create intellectual and knowledge flexibility inside the organization and enhance the use of the change leadership pattern.

Seventh, the organization must operate to remove cognitive and psychological obstacles associated with the creative process through the construction of a marketing vision based on the customer as main variable.

Eighth, adopt a set of strategies that help to strengthen communication between the employees and enhance the scientific research (such as the communication networks strategy and scientific research strategy).

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