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ORIENTED SCIENCE LEADERSHIP ROLE IN WAYS OF MANAGING SCIENCE AND INNOVATION OPERATION IN CORPORATE MINO

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Abstract

Competitive world now is constructed on science and an organization doesn't go along with science, will fail. This research also addressed to science and organization science oriented discussion. But the main aim of this research is checking oriented science leadership role in ways of science and innovation ways. The way of research is functional purposely and descriptive-survey. The checked society in the research is corporate Mino that is a sample with 127 selected items. The way of collecting information is library and field and questionnaire has used to collect information. The way of analyzing information is structural equations that have used SPSS and PLS. finally, the research shows that the ways of science management effect on corporate innovation and also science oriented leadership effects on corporate science management.
Keywords: science, science management, innovation performance, science oriented leadership

I. INTRODUCTION

In accelerated and evolution world now, the thing realizes the organizations competitive interest is high quality and thought human force created by science. Science as invisible capital is the most fundamental economic resource; although like other sources, need to management and standardization (standard ISO/IEC 27002). Managers always appreciated and used value and

importance of thought science and capital. And today, in various researches, the relation of science with operation is identifies well, and its significance is highlighted in the organizations frequently (Ambos & Ambos, 2009; Tran, 2010). Science not only as most important strategic source of any corporate but also in individual and individual work leads to operation growth and improvement (Chen & Lovvorn). And also science category is placed in the organizations. today, organizations managers know machinery, equipment and building cannot be considered as the most basic organization asset, the significant asset of any organization is organizational science and its correct management that leads to competitive achievement for organization and finally will overcome on rivals (Akhavan and Jafari, 2005). Science management effect on information technology quickly and in some cases, passes though it (Choi & Lee). Following science assets significance, organizations science assets management has been focused increasingly (Ahmadpour, 2002).

Science management called as the art of achieving value added from invisible capital. In century 16, François Bacon stated that science is power, but this power that implies on science provided with same organization people or staffs and if there is no proper organizational culture and environment, the concept of this statement leads staffs to hoard science to remain powerful, then, the main task of science management is making a bed in the organization that staffs offer their science with the organization to share and reuse it. if an organization want to manages science in its body, first must identify science various levels, sources and places and transportation science(Sohrabi et al, 2015).

If science management has been an interesting issue in thought centers, now we speak of science leadership, and it has attracted active thinkers in management and reporting scopes. Of course, these two matters are not separated and are overlapped in many discussions. Science leadership suggests significant change of challenges for managers during last years. Today, it is possible completely that no factor can makes fundamental changes and evolutions as much as value creation. Witness and the base of this acclaim is organizations increasing interest and tendency to finding new ways by which one can provide more value with their organization.

In past, the organizations great leaders have focused on long time landscape and macro-decisions, whereas the effective science is produced and published increasingly by current science system in the organization includes that organization science staffs. In result, the basic challenge for managers nowadays is increasing knowledge and upgrading staffs' efficiency that produce science which makes increasing market value (Donate and Pablo, 2015).

In one hand, innovation as important issue for people, institutes and together, for all societies is very significant and basic because of its relation with flexibility and production (Rankv). Krvgaglyardy (2003) believe that the most important factor in human growth and development is innovation and creation in all areas, so innovation is important factor in all organizations in competitive environment. In this line, science oriented leadership role can effect o innovation and guide staffs to creation and innovation. Hence, the main matter of this research is that how science oriented leadership role takes form in ways of science and innovation management?

II. HISTORY OF INVESTIGATION

Lee Choi (2003) in a research about science management styles and its effects on organizational operation found that how various styles of science management effect on the organization operation, so that 54 firms have been selected and tested particularly. The results show that among four styles: dynamic, systemic, human oriented and static (inactive), style of dynamic has most effect on the organization operation by highlighting on science management implicitly and explicitly. Also human oriented and systematic styles only by highlight especially on explicit science or implicit science have no difference in the organization performance and static style has lower effectiveness in comparison with other styles. Thus, explicit and implicit sciences are effective in the organizational science investment together.

Pauline and Mason (2002) in a research, check obstacles and effective factors in accepting science management programs. The findings of this research shows that science management obstacles in the organization are: competition, rivals pressure and this idea that science management can increase efficiency and avoiding information.

Roland and Mason (2004) in an empirical study in general organizations of Malaysia checked ability of access to science management in Malaysia entrepreneurship administration, also they checked relation of human resources, problems, responsibilities and technological dimensions with science management in the organization. This study has concluded that above administration has no special science management strategy. Of course, this study showed that there is science in this administration and this science appears in processes and ministry policies, work processes and information bases. Another result of this study is this fact that this ministry staffs still feel only ministry chairman or segments chairman is responsible for science management in the organization. Just 48.3% of staffs feel that science management responsibility must cope all staffs. To be successful in general services office, all staffs must be responsible for managing various sciences in the organization.

Lusty and Chen (2003) perform another study in science management in general organizations. They check this problem in this study to how can manage science and also how culture nature of sharing in an organization. They found in this study that how sharing science is in an organization and sharing science in governmental organizations is a unique important challenge. They found that governmental agents are some hierarchy and bureaucratic organizations that make sharing science difficulty. They assert that seems that don't tend to share their science with others. They maintain science to upgrade with achieving the power.

Shield et al (2000) from Carlton University in Canada, performed another study about science management in governmental organizations. This research which is performed by human studies congress investment and Canada public part and also looks for analyzing actions in science management area in Canada public part and also check science oriented economics on work in general services part. One of the main findings of this research is that the actions which performed in governmental organizations in science and information area, are extremely political and effect on general part agents and various groups of clients in governmental segment.

Seyed Omar Sharif Al-din and Seyed Ehsan (2004) in a study which performed in science management area in general organizations, have checked the relation between organizational components (organizational culture, organizational structure, human source technology and political orientations) and ability to create science in Malaysia development and entrepreneur ministry. The results show that there is an important relation between some of these variables and ability to produce science and transferring science. Thus, it is necessary to attend to some of these factors that have important relation with science management to apply science management.

III. RESEARCH REQUIREMENTS

First hypothesis: the ways of creating science management effects on innovation performance.
Second hypothesis: the ways of transferring science management effects on innovation performance.
Third hypothesis: the ways of applying science management effects on innovation performance.
Fourth hypothesis: the ways of saving science management effects on innovation performance.
Fifth hypothesis: science oriented leadership effects on the ways of creating firm science management.
Sixth hypothesis: science oriented leadership effects on the ways of transferring firm science management.
Seventh hypothesis: science oriented leadership effects on the ways of applying firm science management.
Eighth hypothesis: science oriented leadership effects on the ways of saving firm science management.

IV. RESEARCH METHOD

This research is functional and descriptive-survey one. Statistic population of this research is corporate Mino staffs. The way of collecting information is library and field, in field part, questionnaire is used. And questionnaire of this research is confirmed in reliability and stability. The way of analyzing information is the partial least square (PLS), SPSS and smart pls are used in line of data analysis.

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V. FINDINGS

Descriptive variables checking

TABLE(1): Descriptive variables

Variables	Average	Standard deviation	Minimum amount	Maximum amount
Creating science	3.35	1.11	1.00	5.00
Innovation operation	4.15	1.09	1.00	5.00
Transferring science	3.44	1.01	1.00	5.00
Science application	3.38	1.08	1.00	5.00
Science oriented leadership	3.11	1.15	1.00	5.00
Saving science	3.76	1.16	1.00	5.00

Correlation among variables test

Spearman correlation test is showed in table (2).

TABLE (2): CORRELATION

Innovation in operation	Science oriented leadership	Creating science	saving science	Science application	Transferring science	
					1.000 . 127	Correlation intensity Meaningfulness level Number transferring science
				1.000 . 127	0.654 0.000 127	Correlation intensity science application Meaningfulness

						level number
			1.000 . 127	0.620 0.000 127	0.474 0.000 127	Correlation intensity Meaningfulness level Saving Number creating science
		1.000 . 127	0.660 0.000 127	0.466 0.000 127	0.382 0.000 127	Correlation intensity
	1.000 . 127	0.158 0.031 127	0.668 0.000 127	0.373 0.05 127	0.454 0.009 127	Correlation intensity Meaningfulness level Science leadership Number axis
1.000 . 127	0.147 0.11 127	0.465 0.000 127	0.475 0.000 127	0.464 0.000 127	0.376 0.000 127	Correlation intensity Meaningfulness level Number innovation operation

As we see in table (2), Spss has tested correlation test among variables in 95% level. Meaningfulness level is 0.000 because this amount is less than 5%. In assurance level 95%, hypothesis zero (H0) is rejected based on lack of variables relations and correlation among all variables is meaningful; thus, one can measures the research hypotheses and enters into structural equations.

Sample adequacy test KMO

Meaningfulness of Chi or Croit Bartlet test is least necessary condition for using structural equations. In Bartlet test, rejecting Hypothesis zero suggests that correlation matrix has meaningful information and there are necessary conditions to applying factor analysis and structural equations.

TABLE (3): KMO amount and Bartlet test result for variables correlation matrix

Sample adequacy test	0.787
Croit Bartlet index	639.70
Freedom degree	115
Meaningfulness level	0.000

Table (3) shows that KMO amount is 0.787 that is more than 0.5, and is meaningful due to meaningfulness level (0.000) of Bartlet test; thus, due to sampling adequacy and meaningfulness of Bartlet test, data correlation matrix is possible to inter into structural equations.

Questionnaire reliability and validity and model fitting in PLS

Table (4) shows Cronbach Alpha of research variables. As we see Cronbach Alpha is more than 0.70 for all variables.

As we see in table (4), all structures have more than 70% reliability.

As we see in table (4), all structures have more than 40% validity.

TABLE (4): reliability and validity index for research variables

Variable	CR	Alpha	AVE
Creating science	0.87	0.78	0.57
Innovation in operation	0.84	0.78	0.43
Transferring science	0.78	0.81	0.45
Science application	0.77	0.83	0.44
Science oriented leadership	0.73	0.79	0.46
Saving science	0.70	0.88	0.64

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The main hypotheses test by using structural equations pattern (PLS)

After assuring being or not being casual relation between research variables and observed data fitness checking with conceptual model, also research hypotheses are tested by using structural equations pattern (partial least square approach), the results of hypotheses have reflected in diagrams (1) and (2).

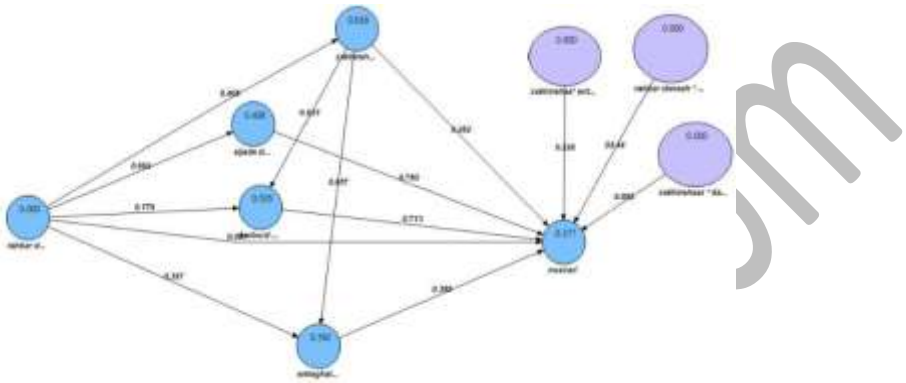

Diagram (1): measuring final model and hypotheses results in standard mood

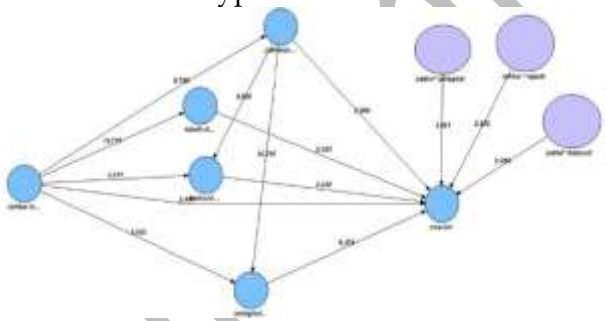

Diagram (2): measuring final model and hypotheses results in meaningful mood.

As we see in table (2), the effect of variables is showed. Meaningfulness coefficient (t statistics) is used to confirm or reject investigation hypothesis. If t statistics is more than 1.96 or less than -1.96 (in 5% error level), confirmation hypothesis and meaningful relation are concluded. Also in measurement model, we see factor coefficient is more than 50% for any variable. The summary of hypotheses test results have showed in table (5).

TABLE (5): summary of hypotheses test results

Main hypotheses	Trace coefficient	Meaningfulness coefficient	Result
First hypothesis: there is a positive and meaningful relation between ways of creating firm' science management and innovation operation.	0.75	2.93	Confirmed

Second hypothesis: there is a positive and meaningful relation between ways of transferring firm' science management and innovation operation.	0.35	3.47	Confirmed
Third hypothesis: there is a positive and meaningful relation between ways of creating firm' science management and innovation operation.	0.71	2.23	Confirmed
Fourth hypothesis: the ways of saving firm' science management effects on positive relation of the firm science management transferring and innovation operation ways.	0.22	2.48	Confirmed
Fifth hypothesis: the ways of saving firm' science management effects on positive relation of the firm science management application and innovation operation ways.	0.88	2.45	Confirmed
Sixth (first secondary) hypothesis: there is a positive and meaningful relation between science oriented leadership and creating science management ways.	0.662	12.77	Confirmed
Sixth (second secondary) hypothesis: there is a positive and meaningful relation science between oriented leadership and transferring science management ways.	0.39	2.83	Confirmed
Sixth (third secondary) hypothesis: there is a positive and meaningful relation between science oriented leadership and science management application ways.	0.17	2.31	Confirmed
Sixth (fourth secondary) hypothesis: there is a positive and meaningful relation between science oriented leadership and saving science management ways.	0.45	6.76	Confirmed
Seventh hypothesis: there are science management ways in adjusted relation between firm science oriented leadership and innovation operation.	0.844	2.25	Confirmed

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Final model fitting

To check model fitting in partial least square, we use the world quality measurement which Amato et al (2004) have introduced.

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

$\overline{communality}$: Measure average community of any variable and external model quality.

R2: average R2 is hidden exogenous variable.

R2: measures internal model and is calculated according to hidden variable which endogenous variable describes.

High fitting of the model shows that this model is explained well. Sposito et al (2010) believe that introduces index 0.02% very poor, 0.35 good fitting and 50% very great fitting. General model fitting index is 0.526 percent, thus, one can accept that general model has proper research.

TABLE (6): final model fitting

Name of index	R2	Communality
Creating science	0.438	0.43
Innovation in operation	0.377	0.61
Transferring science	0.592	0.54
Science application	0.535	0.66
Science oriented leadership	-	0.66
Saving science	0.616	0.36

$GOF = \sqrt{0.543 \times 0.511} = 0.526$

VI. DISCUSSION AND CONCLUSION

In first hypothesis it becomes clear that the ways of creating science management have positive and meaningful relation with innovation operation. It is suggested that organization managers create accessible mechanisms by using science in the organization and also staffs accompany organization to create science and form work group to create science that highlight innovation in the organization and finally create innovative operation.

In second hypothesis, it becomes clear that the ways of transferring science management have positive and meaningful relation with innovation operation. It is suggested that staffs encouraged by manager to serve as master and trainer for new staffs with little experience, and

through it, provide the people with little experience with their science, the gained science from various projects must be offered to all organization members, this science becomes documentary through electronic tools and transferred to whole organization. Also the staffs, who distribute science through daily interaction, give reward to avoid confining science.

In third hypothesis it becomes clear that the ways of science management applications have positive and meaningful relation with innovation operation. It is suggested that organization defines responsibility for individuals in the organization to identify science management properly and can implement science in the organization by using proper tools to improve staffs' creative operation and finally lead to innovation operation in the organization.

In fourth hypothesis it becomes clear that the ways of saving science have positive and meaningful relation with innovation operation. It is suggested that before selecting and organizing data and information in the organization. Staffs must gain science and information quickly, also recording science through electrical tools, organizational processes, documentaries such as official notebooks, work actions, organizational standards, learned lessons provided by staffs.

In fifth hypothesis it becomes clear that the ways of saving science management have positive and meaningful relation with the firm science management and innovation operation. It is suggested that it becomes possible to transfer individual science through face to face interactions, and the organization space is designed so that encourage staffs to share science, and also consider proper ways of sharing science as a staffs operation measurement in encouragement pays, and also organization data bases become accessible away, and special project are devoted to special professional staffs to transfer science through organization science and stronger and proper ways and staffs are encouraged to innovation.

In sixth hypothesis it becomes clear that the ways of science oriented leadership has positive and meaningful relation with science management ways (creating science, transferring science, saving science and applying science) hence, it is suggested that organization leadership always creates environment for staffs work teams and responsibility behaviors, and provides science leadership as the most important character by making freedom, allowed error coefficient and mediator factor in access to firm goals. Also managers must promote making learning systematic error capacity through experience, and acts as a guide and applies and shares its science.

In seventh hypothesis, it becomes clear that among the firm science oriented leadership and innovation operation, science management ways are adjusting. In this relation, it is suggested that science management in the organization is offered in the way that make leadership science oriented because science oriented leadership requires having science leadership in whole organization.

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