

Survey role of Information and Communication Technology(ICT) on innovation as One of the component of knowledge based development

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Abstract: In this paper, we studied the influence of information & communication technology on creation and innovation that leads to national production in complex environments and it's as an infrastructural component of knowledge-based development. Whereas today the busy and unpredictable environment with variety of rapid changes exists in all parts of society and definitely Iran is not an exception, and beside that because of shortening of the world or universalizing of all parts specifically in culture and economic, and severe competition at usage of science and technology and actualizing of them, there is the need of creation and innovation and having wise and intellectual people for preparing national production and increasing knowledge more than before in modern world that part of this important thing realizes from modern information and communication. Whereas today, index of evaluation of countries is based on technology and creation and not only GNP, we can nominate that a country is advanced and developed if it has higher mental and cultural power. This case is made of wise people thoughts that are living in our home. So, the researcher studied the influence of information technology on creation and innovation in a surveying way as one of the most important indexes of national production. Meanwhile the definition and importance and studying the ICT indexes, the influence of them on creation indexes is measured. Technology indexes are in three aspects of period and measure of usage, motivation and goal, and partnership as independent variables and creation and innovation as dependent variables with two indexes of creation of new knowledge and increasing the wisdom. In fact in this paper is answered to this question that if information and communication technology in Iran society can cause creation and innovation as one of the components of national production or not? After sampling, the statistical analyses were done and good results were achieved that among them we can mention that one important part for investment in creation and innovation is investing in modern information technologies that can lead to national production and we shouldn't be frightened from its harms, because its advantages is much more than its harms, but its harms should be recognized.

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Introduction

In recent years, creativity and innovation have been used increasingly as in all areas sector of society, especially, With the development of modern information and communication technologies, interest took off with expansion of globalization and shifting into knowledge-based and information-based economies, especially after explosion of computer technology and the Internet. Their impact on society more than before on products and the production of a country's national a country. so Literature on creativity and innovation is subject that for enhancing human potential in all domains of life to day discussed and intellectual challenge. But in science. Engineering, industry and economy and business, also culture and art more specifically and tangible. In this paper, the impact of ICT use of information technology and Intelligent technology How to format and usage as well as Incentives for the use of new technologies as a useful tool of creativity and innovation for maximizing

personal and institutional productivity, has been studied to measure Inventions and discoveries of modern science. This question has been answered that the interaction between teaching and learning that lead to the discovery of Creators Whether it is the characteristics and advantages of ICT? A large body of literature on creativity broadly conceptualizes it as a process or product that shows a balance of originality and value. In the other, A product which is useful but not novel or novel but not useful, cannot be considered creative And what will lead to national production And has studied in the context of new technologies Both the criterion that there should be. so What draws us to the deviation And can cause great damage, The criteria of novel become inadequate in the context of creativity (Jeremy burton, 2006). for example, Especially is more attention in the areas of culture and economy, Iranian non-compliance patterns and models, or copy them, And the use of non-native products, Without realizing it Knowledge or new

product is good or not? According to Ali's speech stated that the sermon expressed Motqyn: That takes refuge is useless the scientific for community and not benefit the people. Using ICT to support and promote creativity have been achieved the national production. As one of the world's most important technologies that can lead to economic and cultural programs as well be in the range of organizational tasks. In fact, the interaction between people and elite opinion and practice, and innovative behavior in communities and organizations can occur in the context of information technology and increases in production and products to organizations. Thus, Creative role of users is crucial. Creative users are that who facilities and various aspects of ICT use until creative and new activities create in their fields. Application ICT for creativity and innovation is one of the most valuable and useful practical aspects of it.

Research Method

In this paper first are expressed the research methods and data collecting then conceptual and operation definition of research variable will be offered after scaling and preparing the questioner, validity & reliability is done. Then statistical society and the sample size are specified and in the next part analysis is done. In this research, we are using a survey research. Survey research is a method in social sciences research that Bicker defined it as this: a descriptive research from attitudes & demographic behavior based on random samples and the answers of them to some questions of survey research that is a tool for getting the answer from the samples.

The main hypothesis

- If Modern information & communication technology (ICT) cause the creation & national production.

Sub-hypotheses

- The amount & duration of using new technologies that cause the creation of knowledge & new products.
- Type used and motivation and purpose cause the creation of knowledge and new products.
- Participation and activation of users in using modern information technologies cause the creation of knowledge and new products.

Definitions

Conceptual definition

Information and communication technologies (ICT) include all technologies. These are distinguishable from each other and equally important. That include software and hardware that examples of them in this definition are all the electronic technologies that people are using are applying them in their lives, such as internet, email and electronic letters, computer networks, electronic-commerce, electronic-government, mobile and satellite. In order to determine the dimensions and species of new information and communication

technologies and its effect on creation, innovation and growth of national products, William Aguren's definition (2007) believed that technology is always the first factor of change and more over, it causes large changes in the dignity of human life (Behzad Era, 1386) and Mohsen Ghadami's definition (1385) are used that it knows that all of the technology is in three distinguishable and equally important parts that are hardware, software and brainware. The term participation is the arabic word and is in bob mofalh and the persian equivalent of that is collaboration, and its meaning is partner in work. In other word, it is involving some thing. Participation is a mental & involvement of people in group activities that resurrects them for helping to achieve group targets and they are partners in work responsibilities three important thought in this definition to be: involvement, to help and responsibility (Dulles plich 2010) in this research, for measuring the amount of participation and activation of user, following parameters were used:

- having email & personal blog
- having interaction & correspondce whit the use of information technology in cyber sapace
- involvement in discussions
- follow up of issues raised
- the amount of income that they spend for using IT

the content of information technology that is used (Mandy Vienna :2011) he know that the force motivating people to behave a certain way and he knows the causes of human behavior is motivation. Describing and explain the causes of behavior base on theories of motivation (John Kay 2010) considers the complex force that cause people to be active and reach their goals, there force, according to the thorey of of incentive can be concluded that user motivation and goal of modern information & communication technologies refer to interest rate, needs and situations that encourage and lead user to use it. In this study, according to the needs motivation & goales, people in using ICT are divided into two categories: 1-oriented, 2- unduly. John jac gue sirvan shraybr says "the only source of power is creation of new knowledge "and the competition is inevitable "that is through compater network & new technologies. But the reflection of paper invention by the Chinese was lengthen centure. But to day the expansion is immediate. Other boundaries can,t stop the competition and the goals changing Thomas jeferson conclude s that every generation needs a new revolution (Gadami, 1387) different countries look at science, technology & innovation as key resources for getting competitive adavantege and also constitutes as an essential tool for improving the living standard, international institutes evaluate the national development based on the same criteria (Norozi

abdollreza and others ,1389).Change of recent development in innovation is important in all countries as well as experimental studies indicate that innovation has a significant important in the development .

Therefore the differences in definition of innovation measurement index are depending on the goal of studies and different approaches but it is in european approach of innovation which has started science 2001 in the Europe union.Measurement indexes of teaching and learning , creation of new knowledge adaptation , transfer and application of new knowledge and innovation output are in the form of new products. Researcher used the same ideas , especially "theory of competitive advantage" and theory of "successful innovation and pluralism" of Mr.Peter Drucker that's in "modern ideas for management" book of Dr.Ghadami , the innovation and creativity indexes are as follow:

Innovation is both conceptual and perceptual . from the conceptual view is doubt on the mind and perceptual view is based on the discovery and creation . as values can be understood , acceptance is also understandable(Peter.Drucker , 1387).he says innovation is an actualized thing and innovation requires knowledge.

That leads to personal and social development . he also says that innovation and creativity should be continuous in community and organizations and also should be done on individuals the third point he refers is that he know creativity is as a change in society including the economy and culture and this change appears in people's behavior.He points out that the most successful countries have been the most innovative countries and also successfulness can be reminded as an important index.

Operational definition

In this study ,it,s the rate users access to (ict)and virtual networks and electronic media that is divided in to 5 categories of 1 hour or less,2hour 3hour 4hour,and 5hour with high consumption and low points mean low level user

1-Orinted :include content of technologies that user are using that have benn divided into five (5)categories of reserch,science.news.teaching&learning

2- unduly: includes recretion &entertainment that can be less targeted and is used to spend time, being away from interpersonal,social,and psychologicalproblems and is used regardless of content of technology.

In fact we answer to the question whether the orientation of using technology can create creativity ?

In other wordes targeted orientation of selecting and using content of technology is in order to reach desirability

Increasing kowldege &especially new knowledge (every innovation needs knowledge &awareness(piter drucker)knowledge is not money that,s impersonal &external .meaning of the knowledge of a book ,is not a data base or a software . these only have information but is always in human entity and increasing everytime , knowleis dge is what is tought and used and transfer by human.so educated people in transition and moving to a knowledge –base society are in the main focus (gadami 1387)creation of new knowledge is presented in the form of article s ,products, inventions ,and national new economic,cultural values

Scaling and preparing questioner

In this study ,acountinius function is used to meure dependent &independent variables other than the frist question that has been done in 5 likers,others scaling is based on continus function that in the operational definition s,the dimensions .and index of the dependent &independent variables,we identified &introduced.items &questins are intended to measure the dimensions indexes that are mentioned.

Pre-Test &Validity & Reliability of Questionnair

Pre-test &measurement of validity &reliabilityof questionnaire is order to resolve the ambiguities &failures in the questionnaire and is one of the regular ways . inthis research befor final adjustment &preparing questionnaire in order to measure the validity &reliability .frist the questionnaire is tested on 25 user on the estatical society.after completing questionnaire in order to measure the validity and reliability of questionnaire should act as follows:

a)measure the validity of questionnaire

to measure the validity of questionnaire construct validity is used that it explains the relation between research tools &concepts.validity of construct is achieved with scientific anayseis (Kaiser-meyer – oklin)and significant levele of Bartlett,s test. Thus ,if the amount of komo was .6 or more and also the significant level of barttlet,s test was .05 or less ,can be said that the questionnaire variables are acceptable.

b)Measurement Validity and reliability

In this study,in order to measure the validity of questions we used the method of kronbakh alpha test ,so that if the alpha level was greater than 60.,can be said that the validity of the questionnaire variable is high and verifiable and the table shows high variable .

Table(1) . The reliability &validity of research variables

validity	reliability		Dimension	Variable	Type of variable
Alpha	Significant level of Bartlett's test	komo			
0/9	0/00	0/73	Participation rate	ICT	Independent X
	0/00	0/67	User rate		
	0/00	0/76	Type used and the motivation		

0/85	0/00	0/72	Increased knowledge and new knowledge	Creative & innovation	Dependent Y
			Creating new knowledge		

Statistical society

In this study statistical society has been determined the IT users both men & women at university level in the two provinces of Golestan & Semnan based on current statistics were 54000 people that associated & Phd levels were not considered, because it might mean each side tends (the very high prevalence of Phd level that uses technology & on the other side,) the associated level can't use technology. Thus the experts at under graduate & post graduate level as 80% of the population were the statistical society so with the limited statistical society and uncertain standard deviation Pq and 5% for each the sample was determined.

The sample size

To determine the sample size with the statistical society, the equation of Cochran sampling is used :

$$n = \frac{Nt^2PQ}{Nd^2 + t^2pQ}$$

in this equation

n=sample size N=population of statistical society

q= ratio of lack of the trait in the population (probability of success) 50%

p= ratio of presence of the trait in the population (probability of success) 50%

t= 1.96 = Z/α confidence level 95%

d² error level (potential accuracy of the desired) 6%

according to the above formula 54000*70%=37800

$$\text{Aliabad} \left(\frac{6000}{31265} \right) \left(\frac{600}{54000} \right)$$

Table(2) . Statistic analyze

max	min	N	Confidence level	δ	tSE(x̄) = t*s/√n	ε Carefully researched	t=Zα/2	p	q=1-p
5	1	50000	0.95	0.67	0.060	0.06	1.96	0.5	0.5
Statistical limited number of community members and known standard deviation				n=	469.8				
Unlimited number of members of the population standard deviation known				n=	474.3				
Limited number of community members and a standard deviation of statistical uncertainty				n=	265				

Table(3) . Statistic analyze of data

Given the sample size formula 300	BS Factor	Shahrood	Semnan	Azad shahr	Aliabad	Sum
36400	0.7	20000	18000	7500	6500	52000
265		0.38461538	0.346153846	0.144231	0.125	1
		101.9	91.7	38.2	33.1	265.0

Analysis

After sampling, the questionnaires are encoded in the form of raw information and data into excel program and based on spss and statistical software descriptive and inferential statistical analysis processing was performed in 4 steps:

Methods of data analysis: variable analysis was conducted in three stages as follows:

Step 1: Analysis of single-variable :At this stage each of the study variables (dependent and independent) as one variable analysis based on Central Statistics (facade, mode, median) are analyzed and described

Step 2: the comparative analysis: at this stage in order to compare each of the research variables (dependent and independent), the correlation coefficient and Kydo test were used.

Step 3: analysis of two variables: At this stage in order to test the research hypotheses, each independent variables as mutually with each dependent variable (IT) according to statistical tests and significant coefficient, Kendall, person, and Regression Analysis with respect to measured levels has been done

1 - Analysis of single-variable, the first step:

As can be seen in the table, users surveyed in this research were respectively, 43.6% females and 56.6% males that have been selected and tested by using cluster sampling from the provinces Golestan and Semnan.

As can be seen in the table, the users surveyed in this study were 63.1 percents undergraduate and 36.9 percents were postgraduate and above.

Table(4) . Analysis of single-variable, the first step

Distribution of users based on gender			
gender	Frequency	Percent	
famle	103	43.6	43.6
male	133	56.4	56.4
total	236	100.0	

Table(5) . Distribution of educated

ratio	Frequency	Percent	Valid Percent
MA	149	63.1	63.1
BA&HIGHER	87	36.9	36.9
total	236	100.0	100.0

Distribution of educated population in the

statistical society indicates the fact that the people chosen sufficiently accurate and the users can have a college degree and use the technology.

2 - Analysis of two variables: the second step to test the research hypotheses.

At this stage of data analysis in order to test the research hypotheses, each independent variable separately and mutually with dependent variable of the research will be analyzed and compared.

as respects to Some variables measured in nominal scale and a rating scale while others at a distance scale, for significance and the solidarity in order to the ability to generalize the statistical society in Measurement level, the correlation coefficient and Kendall and Tau, Spearman and Pearson has been used. The amount and duration of use of information technology x1 and innovation y4

Table(6). The amount and duration of use of information technology x1 and innovation y4

Kendall's tau_b	Kendall's tau_b		creative	duration of use of ict
	Creative&inovation	Correlation Coefficient	1.000	.314**
		Sig. (2-tailed)	.	.000
		N	236	235
	amountand duration of use of ict	Correlation Coefficient	.314**	1.000
		Sig. (2-tailed)	.000	.
	N	235	235	

The above table shows the correlation between the use of information technology and innovations. as given sig = 0 then $r \neq 0$, means that r is not equal with 0 and this indicates a significant relationship between the independent variable (the use of information technology)and dependent variable (creativity) and because the measurement scale is ordinal and distance, the correlation coefficient tau - Kendall has been used.

Table(7).participation and activation in using ict as an independent variable x2 and creativity as the dependent variable y3

Pearson		creativity	participation in using ict
creativity	Pearson Correlation	1	.549**
	Sig. (2-tailed)		.000
	N	234	233
participation in using ict	Pearson Correlation	.549**	1
	Sig. (2-tailed)	.000	
	N	233	235

** . Correlation is significant at the 0.01 level (2-tailed).

Spearman's	Spearman's		creativity	participation in using ict
	creativity	Correlation Coefficient	1.000	.543**
		Sig. (2-tailed)	.	.000
		N	234	233
	participation in using ict	Correlation Coefficient	.543**	1.000
		Sig. (2-tailed)	.000	.
N		233	235	

** . Correlation is significant at the 0.01 level (2-tailed).

It should be said in its analysis that positive correlation between the dependent variable of creativity and technology partnerships should be pointed out in solidarity with the dependent variable identity, variable of creativity variable's dependent degree is a bit more and This can be illustrated that by expanding the scope of participation in technology, creativity and innovation will increase in the competitive and complex world of today.

3-2 Type of use (use) and the motivation and the goals of users in the usage of information technology

Type of use (use) and the motivation and the goals of users in the usage of information technology is as an independent variable x3, which is divided into two variables x31 and x32. Use of oriented and targeted information technology, including research, science, news, educational, teaching and learning and organizational and habits of direction or unduly or untargeted involves the use of technology as a hobby for fun and escape from problems, etc.) and creativity as the dependent variable y1.

Correlation and the Significance is for ability to generalize the measurement-level of statistical society and measurement scale is a measure of quantity distance (0 to 100) and both variables x, y are quantitative. So for the scientific conclusions, the Spearman and Pearson has been used.

Table(8). the type used and the motivation in information technology using as an independent targeted variable (x31) and creativity y3

	Pearson	Creativity ₃	Type of use and the goals
Creativity₃	Pearson Correlation	1	.748**
	Sig. (2-tailed)		.000
	N	234	233
Type of use and the goals	Pearson Correlation	.748**	1
	Sig. (2-tailed)	.000	
	N	233	235

** . Correlation is significant at the 0.01 level (2-tailed).

	Spearman's	Creativity ₃	Type of use and the goals
Spearman's	Creativity₃	Correlation Coefficient	1.000
		Sig. (2-tailed)	.000
		N	234
	Type of use and the goals	Correlation Coefficient	.742**
		Sig. (2-tailed)	.000
		N	233

** . Correlation is significant at the 0.01 level (2-tailed).

As can be seen, a significant and positive relationship exists between the motivation and objective to use technology and creativity and innovation.

It almost has a high correlation coefficient and this shows that to achieve the knowledge-based development we should try to use targeted and oriented information technology.

As in Tables 1-5 showed the correlation coefficient was low and this shows that the amount and duration of use in comparison with objectively is less effective.

2 - Multivariate analysis: test the research hypotheses in the third step

As in the previous step was observed and analyzed the correlation between the dependent and independent variables were observed and analyzed and research hypotheses were briefly checking.

3-1 duration of using information technology on creativity and innovations

Table(9) . Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.347 ^a	.121	.117	1.20136	.121	31.942	1	233	.000

a. Predictors: (Constant) duration of usingict

b. Dependent Variable creativity&innovation

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.102	.208	10.101	.000	1.692	2.512
	duration of usingict	.021	.004	5.652	.000	.014	.029

The above tables show a significant relationship between duration of using on creativity meaning that between the use of technology and innovations, there is a positive correlation.

$$\begin{array}{l} \text{if } H_0 \quad \beta = 0 \\ H_1 \quad \beta \neq 0 \end{array} \quad \text{1- so}$$

According to assumption that H_0 equals with 0 and also β is 0, so H_0 is accepted and H_1 is rejected.

2- As respects to $sig = 0$, means that $p < 0/05$. this also means that with the 95% confidence H_1 will be accepted and H_0 will be rejected and also because $t > 2$, this assumption has been confirmed.

3 - r is correlation coefficient and is positive and in these assumptions 21% of the y ,s changes caused by x . It should be noted here that the decisive factor for the use of technology and creativity, and indicates that term is used to measure the impact of 21% with creativity and innovation

2-3 participation in the use of information technology on creativity and innovation

Table(10) .Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.549 ^a	.302	.299	16.09357	.302	99.897	1	231	.000

Predictors: (Constant participation in use ict
b-dependent creativity

Table(11) . Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant	14.533	2.791		5.207	.000	9.033	20.032
	participation	.504	.050	.549	9.995	.000	.405	.603

a. Dependent Variable: creativity

The tables show that with regard to participation in the use of Information Technology and Innovation and creativity in regression tables there is a significant relationship means that there is a positive correlation. and almost has a high correlation.

$$\begin{array}{l} \text{if } H_0 \quad \beta = 0 \\ H_1 \quad \beta \neq 0 \end{array} \quad \text{1- so}$$

According to assumption that H_0 equals with 0 and also β is 0, H_0 States that it is not important. It means that there is no difference between participation or non participation of IT. In other words there is no relationship between amount of participation in using IT and creativity and innovation. And this assumption that H_1 is not 0, means that there is significant relationship between participation in information technology and creativity. so H_1 will be accepted and H_0 will be rejected.

2- As respects to $sig = 0$, means that $p < 0/05$. this also means that with the 95% confidence H_1 will be accepted and H_0 will be rejected and also because $t > 2$, this assumption has been confirmed.

3 - r is correlation coefficient and is positive and in these assumptions 50% of the y ,s changes caused by x . This is an important point should be mentioned that duration of use can't make creativity but participation with regards to the coefficient of determination could allocate 50% and from the other side these numbers will determine the research validity and reliability.

3-3 The motivation, goal and type of information technology on creativity and innovation

Table(12) .Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.549 ^a	.302	.299	16.09357	.302	99.897	1	231	.000

a. Predictors: (Constant) motivation type of ict

b. Dependent Variable Creativity&innovation

Table(13) .Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	14.533	2.791		5.207	.000	9.033	20.032
	Creativity&innovation	.504	.050	.549	9.995	.000	.405	.603

a. Dependent Variable motivation type of ict

As the above tables show there is a significant relationship between the motivation and goal and use of information technologies and innovations. It means that there is a positive correlation between goal and motivation in using the technology and innovations.

$$\begin{array}{l} H_0 \quad \beta = 0 \\ \text{if} \\ H_1 \quad \beta \neq 0 \end{array} \quad 1\text{-so}$$

According to assumption that H_0 equals with 0 and also β is 0, H_0 States that it is not important. Means that there is no difference between being targeted and untargeted in using information technology. In other words, there is no relationship between goal and type of use in information technology and creativity and innovation. And this assumption that H_1 is not 0 means that there is a significant relationship between motivation of using information technology and creativity. So H_1 will be accepted and H_0 will be rejected.

2- As respects to $\text{sig} = 0$, means that $p < 0/05$. this also means that with the 95% confidence H_1 will be accepted and H_0 will be rejected and also because $t > 2$, this assumption has been confirmed.

3 - r is correlation coefficient and is positive and is the slope of the regression line and will determine the type of relationship. In these assumptions 50% of the y ,s changes caused by x .

Conclusions, Suggestions and solutions

As we observed, there is positive and significant relationship between motivation and the goal to use technology and innovations and correlation coefficient is pretty high, and this shows that for knowledge-based development should try to use information technology that is targeted and oriented. As in Tables that shows the amount of use has been seen that the correlation coefficient was low and this indicates that the amount

and duration of use is less effective than targeted. It should be noted here that the determination coefficient for the duration of use of technology and creativity is 21%. Participation and motivation and goal and use of ict could allocate 50% of determination coefficient, and this indicates that Firstly, duration of use can not impact on national productivity and creativity. Secondly, in the use of ict it must be created and targeted the culture that not only leads to creativity and innovation and generate new and useful products but also avoid injury and prevent further damage. Thirdly, for the useful and effective use of ict and capacity of information technology, this research shows that must create incentives for the users, means that positive atmosphere in the community and organizations is in the field and a context of new technologies that can provide the creativity and innovation. A country is developed that has intellectual power and high culture and this power is manifested in the cultural symbols. If we view historical symbols we will see that there are significant cultural phenomena that are derived from ideas of understanding and knowledge of wisdom humans who lived in this country. Generally, this wise man can divide into two categories: The knowledge and intellectual wise and the powerful society, politicians and administrators of government and society. So elignment between these two sources is a value that can occur in the context of new information and communication technologies. Robert Kaplan and David Norton wrote in his elignment book that near Charles River was observing Rowing competition that there are strong eight boats in each boat but condition for success is coincidence in the tournament. According to the reports of The United Nations Human Development and with regards to human development indicators, Iran is ranked 98 and the middle class countries, and shows that because human development in the context of information technology is in order to create knowledge and human capabilities, Thereby with expanding the overall information technology (hardware and software and brain ware) and central justice in using technology, we can achieve this

important component of the human development and spiritual development and ultimately knowledge-based development. Consider a situation where eight skilled and trained athletes each have a unique perception of success in the competition. Optimum number of oar strokes per minute, route selection, speed and direction of wind, flow and maze and the number of bridges under the passage in each direction are subjects that differentiate interpretation of the success. Performance of independent and separate tactics from any oarsman create an undesired position that causes oarsman rowing in speeds and in different directions not only reduce speed but also can even reverse direction, leading to a reversal.

1- But if the synchronization, coordination and harmony simultaneously occur, that undesired position can lead to the desired position and failure is reversed into success.

2- The best alignment in development of knowledge and creativity and to achieve national products is through the correct and targeted use of ICT that integration and coordination can be done to develop through cyberspace.

3- Information technology through align for

A) create value

B) Idea management and create awareness of opportunities and threats

C) Updating the strategies

D) expertise of individuals through

4 - Development of technology capability

5 - Sharing Experience

6 - Skill development

Value chain integration (provided that the cultural values are created, and this happens when you don't make cultural paradoxes.

6- In the pattern of knowledge-based development, knowledge is the main factor of production and emphasis on creativity and innovation in the context of information technology through interaction and communication can be presented.

7- Developed countries that have used this technology used the most benefit from this technology, and won 93% of users. Proportion of countries that are ICT users that they use ICT in their national programs and countries that are not used properly this phenomenon is growing strongly that say that the digital gap. In 1800,

more distance between developed and rich countries and poor countries was 1 to 3, but with today's advanced technology development this distance is increased and has reached 1 to 140.

Because of this reason, economic and material that is based on force and arms, that was important and material capital is not measure and new indicators has been reviewed to detect and measure the distance between countries. So today developing indicators are different and because of this reason the importance of and priorities of cultural development in the context of ICT increased. Therefore if use of technology is an opportunity, we should use this opportunity.

References

- 1- [Armend S. Tahirsylaj](#) .(2012), Stimulating creativity and innovation through Intelligent Fast Failure [Thinking Skills and Creativity](#) , Mchill pub.
- 2- [Avril Loveless](#) , [Jeremy Burton](#), [Keith Turvey](#) .(2006), Developing conceptual frameworks for creativity, ICT and teacher education .jurnal Skills and Creativity number, [Volume 1, Issue](#) , Pages 3–13.
- 3- Doran, Behzad.(2011), Social identity and Cybernetics space" published by the Institute of Culture, Arts and Communications, page 84.
- 4- Drucker,P.F.(2005), modern theories of management, Translated by Ghadami Mohsen and Niazmand Masoud, Tomorrow of Iran publication, Tehran.
- 5- Ghadami ,Mohsen .(2010),Living Government" third University-Industry Congress .
- 6- junkie . M.Rubin.(2010),The variable influence of audience activity on media effect,communication research,VOL24, pp:107-136.
- 7- Noroozi ,Abdol Reza and others.(2009), Science Measurement, Technology and Innovation - Concepts and International indexes, Tehran, Center of scientific policy Research of country.
- 8- Piffer,D. (2012),Can creativity be measured? An attempt to clarify the notion of creativity and general directions for future research" jurnal Skills and Creativity.

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