An empirical probe into integration of communication information technology on psychological management of students and staff at science and research branch, Islamic Azad University, Tehran

Fatholsadat Rahnema[1], Badrolsadat Rahnema[2] and Muhammad Hussein Noure Elahi[3]

[1]Health and Treatment Unit of Oil Industry of the Northeast of Iran, Iran
[2]Tabriz University of Medical Science, Iran
[3]Educational Administration Department, Science and Research Branch, Islamic Azad University, Tehran, Iran

_____

ABSTRACT

The main mission of this research was to evaluate the impression of Communication and Information Technology on psychological management and administration at Science and Research University, Tehran. Six hundred and fifty participants made the sample for the research. Three tools were used to collect data for the research. They are: (i)Well-structured questionnaires using four-point Likert Rating Scale(ii)Interview and (iii)Observation. The well-structured questionnaires included 73 items. The results showed that there are inadequate facilities to ensure impression on electronic administration. A low-level competency skill was also a main challenge in the successful integration of electronic administration in Tehran. It was also found that there was an improvement in psychological management and administration after introducing electronic administration; however the improvement was not so important. Other results made are that electronic administration is less time consuming, faster, more trustable less costly and of higher quality services than the conventional psychological administration method. In addition, the staff and students of SRB were favorably disposed to electronic administration.

Key words: psychological e-administration, economy, globalization, information, communication technology

_____

INTRODUCTION

Today as a result of globalization, changing economy and technology development, different organizations including higher institutions of learning depend more on the use of CIT for teaching, research, psychological administrative and management of students' information. In the light of the new economy, management has changed because of the diffusion of CITs that have changed our values and ways of living. As the diffusion of CIT has impressed every facets of human endeavor positively, so also education and how it is managed (Naisibitt 1994). As in the industries where traditional jobs have changed to become multi-skilled, the change in psychological management and administration. CITs have helped to streamline psychological management of information systems and the nature of job. This is enhanced through the development of new strategies based on modern technology. Under this new dispensation, there is the necessity for a change because our clients are interested in services and products delivered in less time than in the past. In asking for these new demands in less time, our clients are very sophisticated in expressing their demands. Science and Research University is not an exception. Other challenges effective impression on psychological management and administration of staff/student information include exponential increase in students and staff population, decreasing resources and obsolete psychological management/administrative techniques.

41

_____

Prior to the integration of CIT into managing students/staff data, the university depends on the traditional way of filing out information. However, because of the increase in staff and students population, it is sometimes difficult and problematic to save the necessary information. Many important files have been destroyed either by fire or pests. As at today, the population of both students and staff are well over 70,000 including all the Distance learners (MBA, Economics, Education and other Diploma programs). The exponential increase in students' enrolment and shortages of academic/non academic staff made psychological administration and management very difficult. There is however compelling evidence on the potentials of Information and Communication Technology in changing the way people work and in managing change. As a result of technological revolution and globalization, it may be an understatement that CIT have impressed psychological administration and management practices in institutions of learning in advanced countries. This is why Science and Research University, Ile-Ife in 2003 took a giant step at integrating CIT into psychological management. The University came up with a strategic plan (2004-2008).The aspects of the strategic goals that are relevant to the research include: enhancing CIT capability and application to teaching, learning, research and services; computerization of the University Bursary Department and Library; According to Noure Elahi (2012) the University's vision is to:

make the entire community (staff and students) CIT literate, develop CIT to the highest level and to enable it serves as the back bone of SRU; set aside an appropriate fund to support CIT, encourage the staff and student have access to interest; computerize all the registry, health centre and halls of residence so that information can be processed at a faster rate and establish an CIT centre (at the rate of IPC per 50 students).

In order to appreciate the impression of the new technology on psychological management and administration, it is necessary to have an overview of the psychological administrative structure at SRB.

Organizational Structure of SRB
The University Registry is the nerve center of psychological administrative backup. It is made up of different offices, units and directorates. The Registry is headed by the Registrar who is the Chief Administrative Officer and the Coordinator for all other administrative of the Directorates and units under the Registry. While all the Unit Heads, Directors are responsible to the Registrar for the day to day running of their Units, Department and Directorates. For the purpose of the research, the focus will be on the Directorates of Academic Affairs and Personnel Affairs. The Directorate of Personnel Affairs is concerned with the management of staff. This unit handles appointments, promotion and welfare of the different categories of staff. It also provides professional backup to the Departments and psychological management of staff records.

Under this Directorate are: Academic Staff Office (ASO), Administrative and Technical Staff Office (ATSO), Junior Staff Office and Welfare (JSOW) and Staff Training Development Unit (STDU) The Directorate of Academic Affairs is comprised of Admission Office, Examinations and Records, Transcript Section and the Head Office. From the above structure, it is clear that the registry has many functions to perform.

However, under the new economy and this age of globalization, it is glaring that these units need to improve upon its current method of psychological information management. As clearly expressed in the SRB CIT Strategic Plan, the university needs to employ a more efficient, less time consuming, less costly, higher quality service delivery and management through CIT. Fine as the plan is, there is little or no empirical information about its success in psychological administration and management. It is this that gave impetus for this research. The main mission of this research therefore is to evaluate the impression of CIT on management and administration of staff and students information at SRB, Tehran. In order to impressively do this, the following research questions are generated.

Research Questions
How adequate are the CIT facilities provided for management and administration of information at SRB? Compare psychological information management before and after the integration of CIT. The integration and application of CIT is less costly and less time consuming.

How does the staff react to the application of CIT in psychological management and administration?
Is there any important improvement in the management and psychological administration of information at SRB?

Research Objective Goals
The following objective goals are stated for the research.
(i) Examine the adequacy of the CIT facilities provided;
(ii) Compare the psychological management before introducing CIT and after CIT integration;
(iii) Investigate whether there is any improvement in the way information is being managed after the introduction of CIT;

_____

(iv) find out staff reaction to the new innovation;
(v) evaluate the impression of CIT on the psychological administration and management of staff/students information; and
(vi) identify the problems and challenges this innovation is facing;

Justification
This research is very necessary at this point in time when the psychological management of the university have invested a huge sum of money in the implementation of its new strategic goals and the various attempts at encouraging the use of CITs in all facets of the university system. Since monitoring and evaluation is the bedrock to the success of any project, it is expected that the present research will provide information on the main technological development and how it has influenced the students, staff psychological information and management. It is also hoped that the findings will provide further empirical information that will be useful for improving communication, management process, students and personnel psychological administration. This research is also very necessary as there is paucity of empirical studies in developing countries on the impression of e-administration as this is a new area. It is therefore hoped that the research will add to the existing knowledge on the impression of electronic psychological administration on management and administration in a deprived economy.

Research Hypotheses
The following hypotheses were generated for the research.
(1)The integration and deployment of CIT into administration at SRB do not necessarily ensure less costly, less time consuming and higher quality services delivery.
(2)There is no important improvement in psychological management after the introduction of CIT at SRB.
(3)The integration and deployment of CIT into psychological management and administration do not necessarily Influence / enhance communication.
(4)The staff of SRB is not favorably disposed to the integration and deployment of CIT in Management.

Theoretical Framework
This research is guided by the theory of innovations (Kim & Gaille 2004), diffusion in relation to CIT adoption.
Specifically Rogers (1995) and Fichman (2000) classical model was used. According to this model, three factors were considered, they are:
-characteristics of SRU, the nature of CITs adopted and the context in which it was adopted;
-the timing and the extend of adoption;
-factors determining the extent and pattern of ICT adoption;
These three fundamental questions made the framework for this research, they are:
- What is the pattern/extent of diffusion?
- What factors necessitated the adoption of ICTs at SRB?
- To what extent is this innovation being used and for what purpose?

MATERIALS AND METHODS

The research employed exploratory and triangulation approaches. (Denzin 1978 and Dixon 1988). The sample for the research was drawn from the Registry Staff of SRU, Tehran. Eighty staff was selected from Directorate of Academic Affairs (DAA) and Personnel Affairs (PA). The 80 sample was selected using classified sampling technique based on gender, occupation type and cadre (see table 1).

Table 1 – Distribution of Sample

Cadres	Frequency	%	Valid %	Cumulative %
Junior Staff	22	27.5	7.5	7.5
Senior Staff	52	65.5	27.5	35.0
No response	6	7.5	65.0	100

Three types of instrument were used to collect data for this research. They are
(i) structured questionnaire.
(ii) observation schedule.
(iii) oral interview schedule.

The structured questionnaire is made up of 38 items divided into sections. The first post advocated for information on demography of the sample used section II involved status of administration and management before the introduction of CIT. This section also included information on problems associated with the old method section III included information on the type of CIT resources available, its adequacy and the extent of utilization in

43

_____

psychological administration and management. The last section included information on disposition of the Registry Staff to the current effort at integrating CIT into psychological administration and management of information. The observation schedule is designed to collect secondary information on the current effort of the University at integrating CIT into psychological management. It included the spot evaluation of the facilities available and documents. The oral interview involved members of the CIT Committee, INTECU, DAA and DPA. The data collected was analyzed using descriptive and inferential statistics.

RESULTS AND DISCUSSION

Table 2 – % Adequacy of ICT Facilities for Administration and Management

	Yes	No
Do you have enough personnel to handle the situation?	42%	58%
Can you independently work on the situation?	65%	35%
Do you have enough CIT facilities for e-administration?	39%	61%
Is your software system impressive?	69%	31%

The results obtained in respect of question 1 reflected inadequate ICT facilities for the psychological administration and management of information at OAU Ile-Ife. For instance, personnel needed are low (42%) so also the competency level (49%) inadequate facilities (39%).The implication of the above is that CIT cannot be impressively adopted if the psychological administrators do have the right equipment and the competency.

The data collected with respect of question II is showed below.

Table III Paired sample correlation of management in the past and after the integration of CIT

*********************	Mean X	N	Correlation	S. D
Information management in the past and CIT renovation in SRB	16.53	80	0.190	4.76140
Information management in the past and staff	12.15	80	0.127	3.65
Effectiveness of CIT based management I and management of information in the past	19.33	80	0.093	4.986

When a correlation of psychological management in the past and after the integration of CIT was carried out a mean of 16.53 with a standard deviation of 4.76 and a correlation of 0.19 was gotten. However the correlation was not statistically important. Although mean value was higher so also the correlation, the t value = 0.977 df = 79, P<0.3) was very weak. It implied that there was a weak improvement in the management and administration of information; however it was not statistically important. Based on the above result, it can be concluded that there was no important improvement in psychological information management after the introduction of ICT (tc=0.977, df=79, P <0.3).Hence the null hypothesis was upheld. The reasons for the above may be due (i) lack of appropriate CIT skills (49%) (ii) 58% did not have the appropriate CIT tool to ensure impression on psychological e-administration and lastly most of the administrators are not exposed to workshops, conferences and research in CIT .This may partly be responsible for weak impression of CIT in improving psychological management and administration (t=-2.599,df=79p<0.1,.see table6)

Table 4 – Cost, Integration and Deployment of CIT

*	*	*	*	Pearson correlation	Coefficient
1	Using CIT based/e-administration is more effective than the old method	*	*	Pearson correlation	0.454**
			*	2 tailed sign	0.00
			*	N	80
2	CIT based/e-administration is less time consuming, quicker and reliable than the old method	*	*	Pearson correlation	0.283**
			*	2 tailed sign	0.01
			*	N	80
3	Application of CIT in administration has improved inter-communication	*	*	Pearson correlation	0.306**
			*	2 tailed sign	0.006
			*	N	80

**Significant

Table 4 provided answers to question 2, 3 and hypothesis III when the old method of psychological management was compared with e-administration the result showed that e- administration was more cost impressive than the old method (r=0.454, P<0.09). With respect to CIT based psychological administration being less time consuming, quicker and more reliable than the old method a correlation of 0.283 was obtained which was important at 0.01 level, hence hypothesis I which states that CIT based administration is not cost impressive, less time consuming and ensure higher quality service delivery was rejected.

As regards hypothesis III that stated that CIT based psychological administration does not necessary enhanced communication, the data showed correlation value r=0.306 which was important at 0.006 level. Thus hypothesis III

44

_____

was rejected. On staff attitude to psychological e-administration the result obtained showed that the staff of OAU Ile-Ife were favorably disposed to CIT based psychological administration (tc = 8.11 df=79 p< 0.01. hence the hypothesis that stated that the staff OAU Ile-Ife were not favorable disposed to CIT based psychological administration was rejected. (see table 7).

Table 6– Paired t –test of the impressiveness of CIT-based psychological administration and the old method of administration

*************	Mean X	S.D	S. E	Lower	Upper	t	df	Sig (2-tailed
Effectiveness of the old method and CIT based administration	-.2.750	7.140	0.798	-3.664	-0.486	-2.599**	79	.011

**Significant

Table 7: Paired T-test of staff disposition to psychological e-administration

*************	Mean X	S.D	S. E	Lower	Upper	t	df	Sig(2-tailed
Staff disposition to CIT based administration	5.100	5.62454	0.62884	3.84832	6.35168	8.110**	79	.001

**Significant

CONCLUSION

There are inadequate CIT facilities to ensure impression on psychological e-administration at SRB. There is also generally low competency skill among the administrators to use in CIT in administration. It was also found that there was a weak improvement in psychological management and administration after employing CIT based administration but the improvement was not statistically important. Other results made are that CIT based psychological administration is more reliable, quicker, less time consuming and of better quality services than then conventional method of psychological management. In addition, it is less costly and it enhanced interdepartmental communication. Finally the SRB staff was favorably disposed to electronic psychological administration.

Recommendations
Appropriate CIT facilities should be provided. It should include the development and design of appropriate software for e-administration. The Electronic Data Processing course that was made mandatory for all the administrative staff should be restructured to make it more relevant to the needs of the psychological administrators, as research evidence showed that the course was in adequate for the administrators. More of the administrators should be encouraged to attend conferences and workshops on CIT for impression on psychological e-administration. More internet facilities should be provided as e-administration is found to be less costly, less time consuming and more impressive than the traditional method of administration. All other offices that are yet to be net worked and linked to the internet should be linked and the problem of power outage be solved if psychological e-administration is to be successfully employed.

REFERENCES

[1]Dixon, B.R., Bourma, G.D. and Atkinson G.B. (**1988**) A Handbook of Social Science Research: A
[2]Comprehensive and Practical Guide for Students, Oxford University Press.
[3]Denzin, N.K. (**1970**) The Research Act: A Theoretical Introduction to Sociological Methods. Chicago, Aldine.
[4]Fichmann (**2000**) The Diffusion of Dissemination of psychological Information Technology Innovations. In R.W. Zmad (Ed). Framing the Do majors of Information Technology Management projecting the future through the pat. Cincinati: Pinaflex (pp 105 –127).
[5]Kehinde L. (**2003**) Science and Research University Net Backbone for Open and Distance Education, Lead Paper Presented During a One Day Workshop Organized to psychological Commemorate the Iranian University Day. Conference Centre OAU Ile-Ife.
[6]Kim, L. and Gailer, R.D. (**2004**) Towards a Diffusion Model for Internet System. Internet Research 14 (2) pp 155-166.
[7]Naisibitt, J. (**1994**) Global Paradox: The Bigger World Economy, The More Powerful Its Smallest Players. London Nicholas Brealey Publishing.
[8]Otis, E.O. (**1998**) The Statistics and Dynamics in Human Societies Lagos: Solid Edge Associates.
Rogers E.M. (**1995**) Diffusion of Innovations (4ed) New York: Free Press.
[9]Khajevand A., (**2013**). *European Journal of Experimental Biology*, 3:542-547
[10]Mizraei A., Nikbakhsh R., Sharififar F., (**2013**). *European Journal of Experimental Biology*, 3:439-442
[11]Esmaeillou M., Khadayari A., Ghasemi H., (**2013**) *European Journal of Experimental Biology*, 3:382-387
[12]Sabbaghian Rad L., Ghalenoei M., (**2013**). *European Journal of Experimental Biology*, 3:195-205
[13]Tabarsa R., Fllah Z., Golbini G., (**2013**). *European Journal of Experimental Biology*, 3:6-10