Challenges and Necessary Applying of Management Information System (MIS) in Agricultural Education and Extension System of Iran

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Abstract: Object performing this study was recognition challenges and obstacles of applying and establishment management information system (MIS) in Iran agricultural extension organization. (This study was applical , arenal and descriptive and non experimental respectively in the respective of object, control and scale and the manner of gathering information. In this study two measurement and integration method have been used for achievement to these objects. Current study stoical society included provinces extension managers, township extension managers and rural districts agricultural jihad services and extension centers. Total number of stoical society are 1359 sample volume using kumara formula were determined 155 and were selected by two stage sampling - In first stage neighbor provinces To six provinces agriculture jihad department among different region and in second stage some sample using classification sampling with proportional relation from each provinces have been selected. Samples have been interviewed using questionnaire. Applied scal permanence in this study was confirmed with kranbakh alpha higher than 0/70 and questionnaire admissibility was confirmed with the opinion of advisor and guider scholars. Finally analyzing data has performed with soft wars spss protesting results showed that following three buoy have most importance respectively in buoy related to challenges of applying management information system in the view of extension managers : (1) Non extension of one effective relation to top managers in applying field of management information system.(2) don't establish of powerful information technology substructure in management information system field (3) non-increasing understand of top managers about role of management information system and its share in extension department. Factorial analyzing results if management information system challenges also showed that most important applying obstacles and challenges are as: 1-Management obsobstacles 3-Technical and sub structural obstacles, 4-learning educational obstacles 5-human obstacles 6-economical obstacle.

Key words: Information management · Agricultural education · Extension system

INTRODUCTION

In current world, communication and information are supplement of wisely extension. Really, existence sufficient information and its sets in special classification caused to human achieve to its application and knowledge considerably. Theories such as global village, electronic government, electronic commerce, electronic education and etc indicated new environment growth that education and information technology are in our around and achier to special information lead to human use them for solving their problems. It is believed that if organizations knew what they knew, its profitability

become triple. Generally Achievement to one of critical element is competition preference and involved spending much cost, therefore one can view information as a unseen resource that enable organization to provide productions and services to customers. In this regard, organizations such as extension organization with understanding information role as deciding base and its role in deciding process directed to creation information system that can meet manages needs.

Management information system not only supported management in strategic affairs, but also provided necessary information to tactic managers in repeated and routine decisions and enable theme to achieve

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information that be effective help for their decision. Management information system can show pictures of distortion and differences of determined programs and such information provided to management by preparation management reports in the form of logic comment able and analyzable pictures.

Various definitions has been provided about management information system, with the opinion of some, there is a formal system in organization that provided necessary reports for management taking decision process. In other definitions can know it as formal and informal system that provided previous, now and future information of inter-institution operation and its around in the form of written and oval information and support managers, employee and environmental critical factors with preparation information in suitable organization for help in taking diction. Or management information system is a system that gather environmental data and record organizational operations and data interchange and filter organize and select them and provided them to manager as information and provide means for mantras that create required information for support taking decision and operations critical elements of this system are: Integrated system for servicing to many users 2) computorial system that related many informational software's by a information base 3)Machine-user relation that respond to temporal and urgent search 4) providing information to all management levels 5) supporting operations and taking decision.

Therefore, management information system is a integrated system that is responsible preparation information for supporting programming, control and operations of a organization, This system with proportion previous, now and future information about internal and external operations, management and employees, make suitable taking decision process- Really this system provided monotonous information well-timed.

Today, despite of many years have been elapsed of applying and propounding management information system subject in organization in developed countries are as investment increasing permanence in their information system for exploitation its for achievement to derivate strategy advantage. But establish meant and tiring continuation of this system in this countries especially developing countries faced to critical obstacles and challenges. So, discussion in management information system was related closely with discussion about its challenges.

Critical challenges of management information system in international level he's draw many researcher's attention. There fore this study has done with the goal recognition obstacles and challenges of establishment and applying management information system in Iran agricultural extension organization, to provide necessary strategy with recogn, taint this obstacles extension organization in establishment and applying management study background: With regarding to importance of management information system in different area, different studies have done with related to challenges that system have faced with in different organization but some studies paid attention to current challenges in agricultural extension area. Following we indicated some studies that hone most similarity to study subject and were the base of questionnaire and search - for reviewing more and easier done studies in this area, we provided searchers name, year received results of their study in Table 1-4.

Table 1: studied challenges in developing counties

Results	Researcher (s), year
Difficulty in viewing, understanding, reception and using information technology by users	Swanson, [1]/ Lucas, [2]
Low management information system exploitation	Kraemer and Dedrick, [3]/ Heeks, [4]
Ambiguous management strategy and tactic such as: unequilibrium in meeting organization various parts interests, unability in using technology, management persons multiple needs and different groups and confrontation to lacking skills, specialists and information	Austin, [5]
Centralized, family and informal senior management lacking information system special operation with information system activities that is a part of other operation such as financial and audition / especial process for information system / much connection to foreign advisors for information system activities	Jain, [6]/ Kanungo *et al.* [7]/ Heeks, [4]/ Montealegre, [8]
Don't confidence support of senior management for management information system / lack of sufficient specialist, knowledge and history in information system and areas related to management/ don't using strategies and achievements result from developed contrive competition	Leader and Mend low, [9]
Lack of information system skilled human force and professional management specialists	Bhatnagar, [10]
Need to information system personnel and sufficient specialist in two operational and technology area / need to management specialist for compatibility to changing environment	Aladwani, [11]

Table 2: Studied challenges in u. s counties

Results	Researcher (s) , year
Employment process management facilitating, re-designing and creation respondent technology sub structure make powerful management information system more than previous, administrative automation	Neiderman *et al.* [12]
Management challenges / technological challenges	Dickson *et al.* [13]
Investment / management / operational and technology challenges	Bronchia and Wetherbe, [14]
Management / technology / programming and control challenges	Neiderman *et al.* [12]
Information / system executive involvement more than previous	Rockart *et al.* [15]
Shortage of educational management / investment weakness and solving problem / shortage of investment resources / negative effect of information technology programs / don't ability in valuation to customers and managers	Bartczak, [16]
Creation change and variety in nature of information system executives role.	Ives and Olson, [17]
creation respondent information technology substrate / facility and management of employment process re-designing / distribution / distributional system management and extension / extension and perform of information / architecture / commune cat ional network management and programming / improvement extension effective ness and soft ware development / make effective data resource / re-learning and extension information system human resources / harmony of information system organization among investments / improvement programming of information system strategy	Brancheau *et al.* [18]

Table 3: Studied challenges in international level:

Results	Researcher (s) , year
Small average of organization size / economical challenges / cultural challenges	Harrison and farn, [19]
Integration challenges of information technology/ extension technology substructure / security data / relearning of information system employees / improvement programming of information system strategy	Yang, [20]
Strategic programming and organizational harmony / measurement information system effective ness / technology integration / security and control	Watson and Brancheau, [21]
Technical and management challenges	Deans *et al.* [22]
Technological, cultural, economical, legal and political challenges	Dekleva and Zupancic, [23]
Lack of a theatrical model about new challenges frame work, role , management information system authorities and method of general management as a re-designing model	Watson, [24]
Causes of managers fear about applying management information system (1) seclusion, a manager became connected to computer exit (2) change in power relations create new flow of new balance information among chief and subordinate 3) position threat : some of managers may deprecate in position 4) personality threat : one special employment may perform by simple operator	Murdick and Munson, [25]
For top managers change of inter – person relation ',' change in taking decision style and don't – trust a unanimity Information shortage, / for middle managers in addition to above mentioned matter 'change in employment concepts ' losing power and for operational manager in addition to mentioned items 'fear of losing hob ' caused to resistance to applying management information system	Hussain *et al.* [26]
Creation information system organization / communicational network management / establishment respondent information / concentrated, decentralized management / facility and management of employment re-designing process / exchange with current limitation and flight exchange rate / control and make effectiveness data output / information system human resources management / facility and management of calculation last users / integrated management of international technology/ programming and management international management information system / learning with employment guidance of information system in other countries / management and re-controling national and cultural differences / improvement effectiveness of soft wave extension / extension and execution a information architecture / management of TDF limitations / using information technology for make useful competition / execution and management group support systems management programming and integration open systems / control	Vincent S. Lai [27]
Role of senior management in effective management of information system operation	Jarvenpaa and Ives [28], Thong, Yap and Raman, [29], Chatterjee, Grewal and Sumbamurthy, [30], Byrd, Sumbamurthy and Zmud, [31]
Senior management knowledge by understanding potential and effective ness of information technology	Armstrong and Sumbamurthy, [32]

Table 4: studied challenges in Iran

Results	Researcher (s) , year
Don't selection of a method relative to organization situation / lack of organizational evident program for guaidence programming efforts and transferee programming responsibility to a person stuffiest to a person without sufficient experience / lack of educational plane for users for extension information system / don't allocation sufficient budget and credit for extension system / don't effectiveness technical and technologic substructure	Abdollah zadeh Barforosh, Haji Heydari, [33] Sharif zadeh, [34]
High age of extension operators and their low familiarity with information technology	Fallah, [35]
Low familiarity and skills of extension operators in English language, Internet and computer / low area of applying information technology, technical factors/ unsuitable condition of organization environment	Karimi [36]

METHODS AND MATERIALS

This study was applicable, arenal and descriptive and noneprimental respectively in the respective of object, control and scale the manner of gathering information, In this study two measurement and integration method have been used for achievement to this objects. Current study stoical society included provinces extension managers, township extension managers and rural districts agricultural jihad services and extension centers. Total number of stoical society is 1359. Sample volume using kumara formulas were determined 155 and were selected by two stage sampling.

In first stage neighbor provinces to six provinces agriculture jihad department among different region and in second stage some sample using classification sampling with proportional relation from each provinces have been selected. Samples have been interviewed using questionnaire. Applied scald permanence in this study was confirmed with Kranbakh alpha higher than 0/70 and questionnaire admissibility was confirmed with the opinion of advisor and quider scholars.

Finally analyzing data has performed with soft wars SPPS. For recognition challenges and obstacles of applying management information system after reviewing resources and consultation with specialists and experts and consideration Iran extension organizations situation, scale consist of 38 sample has bee prepared and provided to extension organization. To state their opinion about intensity of each challenges in the form of Liker spectrum.

RESULTS

Based on received results 20/65 studied extension manager were women and 79/35 were men. Their age average were 39/4 and majority of them (60/7%) had licenses educational degree. Results showed that only 17/41 education field of managers were extensional and 82/59% of theme were specialist in non extensional fields - managers work history average in agricultural jihad were 18/6 years and their work history average in extension part was 9/14 years. Majority of them (52/9%) were involved in rural districts, 29/7% in township and reminder (17/4%) in agricultural jihad- Other results showed that 45/8% of managers participated in classes related to management system and 54/2% of them don't participated until now in this classes.

Prioritizing Extension Management Information System Challenges in the Tiew of Extension Managers: For determination extension management information challenges 38 sample has been asked to state: importance of each category with a grade I (less importance) to five (most importance) in Liker spectrum scale.

Prioritizing results in Table (5) show that following three items had respectively most importance among items related to challenges of applying management information system in the view of extensional managers: undevelopment one effective relation with top manager in applying management information system, don't increasing understand top managers about role of

Table 5: prioritizing extension management information system challenge in the view of extension manager:

Changes coefficient	Standard deviation	Average	Extension management information challengers	Rank
0/243	0/83	3/42	Un development affective vuation with top manager in applying management information system	1
0/257	0/92	3/35	Don't inversion understanding top managers about role of management information system and its share in extension	2
0/258	0/94	3/33	Don't creation power full information technology sub structure management information system	3
0/260	0/83	3/21	Lack of leader ship committee with high obligation to performing works for management information system extension program	4
0/268	0/88	3/30	fault in involvement users effectively to development of management information system	5
0/271	0/86	3/20	Non education of managers about capabilities of management information system	6
0/276	0/89	3/23	High cost of installation, starting and keeping data bases	7
0/278	0/88	3/19	Non measurement of effectiveness and profitability of management information system	8
0/280	0/86	3/10	Non consideration necessities and needs related to data management and data base in extension of management information system	9
0/281	0/89	3/18	Non allocation sufficient budget for extension of management information system	10
0/283	0/96	3/40	Non recognition, location and organizing required information by management information system	11
0/284	0/88	3/11	Difficulty of designing and applying understand able and permanent management information system	12
0/285	0/95	3/35	Lack of educational program for management information system users	13
0/286	0/90	3/16	Un management human resources of management information system	14
0/287	0/95	3/33	Used soft wars complexity in management information system	15

Table 5: Continued

Changes coefficient	Standard deviation	Average	Extension management information challengers	Rank
0/287	0/91	3/20	Unsung management information system as a standard for measurement and assessment managers operation	16
0/288	0/89	3/11	Un comprehensive extension program of extension management information system	17
0/289	0/91	3/19	Non facility of organizational learning by applying management information system in managing extension	18
0/291	0/98	3/37	Unability in absorbing high specialist personnel for doing information technology affairs suitably	19
0/292	0/92	3/16	Lack of extension effectiveness improvement possibility and software perfection	20
0/295	0/92	3/11	Lack of internal communication network programming and management	21
0/296	0/87	2/93	Don't extension of a strengthening channel for professional zation of management information system	22
0/298	1	3/36	Unability in attraction support of top managers in creation and extension of management information system	23
0/2994	0/94	3/16	Shortage of expert personnel for extension of management information system in extension department	24
0/300	0/86	2/9	unusing management in formation system for make profitable extension department relation with other active organization in agricultural field such as agricultural searches organization	25
0/301	1	3/31	In extension department users dissatisfaction of management information system	26
0/303	0/9	2/98	Lack of organizational evident program for guidance programming effort for management information system	27
0/305	0/99	3/25	Non effectiveness using of necessary data resources in management information system in extension department	28
0/306	0/97	3/18	Insufficient technological and technical substructure in extension department	29

Table 6: KMO am aunt and meaningful level of Bar let test

Fact oral analyze	KMO	Bart let Test	Sig
Challenges of management information system in agricultural extension	0/850	1963/456	0/000

Table 7: Extracted factors with special amount, variance percentage and their group variance percentage

Factors	Special amount	Special amount variance percentage	Group variance percentage
1	5/14	21/22	21/22
2	5/09	18/36	39/58
3	4/13	12/33	51/91
4	3/01	10/28	62/19
5	2/86	8/38	70/57
6	1/25	6/88	77/45

Table 8: Factors related to applying challenges of management information system in agricultural extension

Factor name	Variable	Factorial load
Management obstacles	undevelopment a effective relation with top managers of extension department in applying management information	0/854
	Lack of internal communicational networks management and programming of extension department	0/715
	Debility in receive support of top managers in creation and development of management information system	0/698
	Lack of organizational evident program guidance of programming effort for management information system.	0/658
	Difficulty in guarantee top obligation for perform management information system	0/635
	Lack of relative method and mythology in applying management information system with extension department condition	0/613
	Top management unbelief of extension department for importance of using management information system in achievement to goals of extension department	0/583

Table 8:Continued

Organizational culture obstacles	Mon- increasing understanding of share and role of management information system in extension department	0/856
	Un development a strengthening channel for proffesionalition management	0/799
	Dissatisfaction of users in management information system in extension department	0/785
	Negligence in reviewing management information system program with all managers of extension department and so non achievement to harmony and support for performing program	0/699
	Don't pay attention to new achievement in information technology for development of management information system of extension department	0/582
Technical and substructural obstacles	Don't creation powerful information technology substructure in management information system in extension department	0/863
	Don't consideration necessities and needs related to data management and data base in management information system development program.	0/754
	Difficult programming and applying understandable and permanent management information system	0/728
	Complexity of used software in management information system	0/669
	Un effective technology and technical substructure in extension department	0/620
	Un keeping of management information system substructure in extension department	0/523
Learning educational obstacles	Un education managers about management information system capability	0/762
	Lack of educational program for management information system users	0/635
	Non facility of organizational learning by applying management information system in extension department	0/629
	Shortage of specialist personnel for development of management information system in extension department	0/527
Human obstacles	un management human reassures of management information system in extension department	0/658
	Inability in absorbing expert personal for doing information technology works suitably.	0/633
	Doubt restructuring and development human resources for best exploitation of management information system	0/610
	Transferring responsibility of creation and development management information system to a person without sufficient credit and experience	0/588
Economical obstacles	High cast of installation, starting and keeping data base in extension department	0/766
	Un measurement effectiveness and profitability of management information system of extension department	0/716
	Un allocation sufficient budget for development management information system of extension department	0/650
	Un effectiveness using from necessary data resources in management information system in extension department	0/587

management information system and their share in managing extension, don't creation powerful information system.

Also results of this study showed that three category such as inability in applying management information system related to extension activation , don't pay attention to new a achievements in information technology for development management information system and don't believing DF employees to using management information system were three challenges that allocated less importance them save among studied challenges.

Analyzing Challenges of Management Information System in Agricultural Extension Area: For delivering challenges in some total factor as challenge of management information system in agricultural extension area, desired variable were analyzed, for recognition data proportion for fact oral analyzed coefficient KMO and Bart let test were used that show to some extent studied variable have correlation and dependence to each other

and so are suitable for factorial analyze. In factorial analyze when KMO is less than 0/5, data are not suitable for factorial analyze and when KMO is between 0/5-0/7 data are suitable for factorial analyze and when is more than 0/7, variables would be very suitable for fact oral analyze. KMO amount and meaningful level of Bar let test indicated in Table 6, that are very suitable for factorial analyze.

Based on results of Table 7 factor of management obstacles in extension organization as first factor with special amount of 5147 is only determinate factor of variance % 21/22 that indicated on importance were organizational culture, sub structural and high importance of this factor. olso other factors based technical obstacles, learning educational obstacles, human and economical obstacles that were 13/36, 12/33,10/28, 8/38, 6/88% respectively, which show six factors 77/45% from total variance. But variable arrangement situation in factors assuming variable move than 0/5 after rotation factors with vermin method and naming factors is as Table 8.

DISCUSSION

Based on received results, most of extension managers were men. This may be result of gender discrimination some of top managers in transferring management position to women, as some of them know management as men job and believed that women less be able to solving management problems. Information related to mean and age mix indicated most them were in age of young's and aged, so with age mix among extension manager, can hoped holding educational courses about management information system is a investment in training skilled human resource for future. And education level of most managers was licenses. Therefore holding manner of this coursed must be proportioned with this age mix and their education level. In the other words educational concept and subjects in hold education courses must be more proportioned to necessities and education level of managers with this education level and age class to faced with more welcome from managers.

Results showed that education course of most managers of extension organization was non extension, that in all situation managers education course don't have any relation with extension part. Results of this part show structural problems and obstacles each programming for improvement extension organization situation-with regarding to subject of this study one considers extension. Problems of extension organization managers a big obstacle in applying management information system in this organizations. Average history extension organization managers in agricultural jihad was 18/6 and average history of studied person in both was 9/5 years- In other words manager before working in extension part have work history of 9/5 years in other parts and position of agricultural jihad- this problem can knew as a preference in these manager because recognition other parts help them in applying management information system in extension part that required familiarity with other parts.

Based on collected information most percentage of extension managers were in extension centers and agricultural jihad services and less them were in extension management and agricultural jihad organization exploitation systems. Such result appeared logic because more managers were in townships and words with regarding to country political - administrative division relative to managers in provinces. Get results of study show that 71 (45/8%) from studied sample have participated in course related to management information system.

With regarding to managers individual characteristics that were discussed in previous section updating and effectiveness of provided matters in hold education course and motive for participating in tease courses can help increasing participation managers in education courses. Based on factorial analyze results, management information system challenges, management obstacle were considered as most important challenge. Also in prioritizing management information system challenges, two challenges undevelopment affective relation with top manager in applying management information system and don't incrassation understanding top managers about role and share of management information system in extension department as two first challenges based on importance all results indicated high importance of management problems in applying management information system and managers basic attention to it.

Therefore managers attitude to role at management information system can changed by course, brush ore, conference, educational workshop, circular and directions. Also by formation a committee allocated to management information system in extension organization under supervision of center manage can help to recognition organization information needs consideration possibility of establishment management information system and decreased management ill matching related to this system -with holding meeting among extension manager, management information system has been reviewed and agreed about conformity extension department objects with this system objects. Based on get results, second critical obstacles for applying management information system, was organizational culture obstacle that its importance amount were identified in factorial analyze results. So one managers must more pay attention to component surrounding this factor.

Factors such as participating employees for management information system, making a relation among employees, management and informational specialists, participation and using inter- operation teems in performing management information system, providing user stultification about management information system in extension department, pay attention to new achievement in information technology For development management information system of extension and increasing understanding role and shave of management information system in extension department.

CONCLUSION

This study results show that most important challenges of applying management information system included management obstacles, organizational culture obstacles, technical and sub structural obstacles, Learning educational obstacles, human obstacles and economical obstacles. So it is necessary that Iran agricultural extension organization in its structure allocated a part responsible affairs related to management in formation system and first Endeavour solve organization management problems Them remove other challenges.

REFERENCES

1. Swanson, E.B., 1974. Management information systems: appreciation and involvement. Management Sci., 21(2): 178-188.
2. Lucas, H.C., 1975. Performance and the use of an information system. Management Sci., 21(8): 908-919.
3. Kraemer, K. and J. Dedrick, 2001. The productivity paradox: Is it resolved? Is there a new one? What does it mean for managers? Working paper, Center for Research on IT and Organizations, University of California, Irvine, C.A.,
4. Heeks, R., 2002. Information systems and developing countries: Failure, success and local improvisations. The Information Society, 18: 101-112.
5. Austin, J.E., 1990. Managing in developing countries: Strategic analysis and operating techniques. New York: Free Press.
6. Jain, R., 1997. Key constructs in successful IS implementation: South-east Asian experience source. Omega, 25(3): 267-284.
7. Kanungo, S., S. Sadavarti and Y. Srinivas, 2001. Relating IT strategy and organizational culture: An empirical study of public sector units in India. The J. Strategic Information Systems, 10(1): 29-57.
8. Montealegre, R., 1998. Managing information technology in modernizing 'against the odds': Lessons from an organization in a less-developed country. Information and Manage., pp: 103-116.
9. Lederer, A.L. and A. L. Mendelow, 1988. Convincing top management of the strategic potential of information systems. MIS Quarterly, 12(4): 525-534.
10. Bhatnagar, S.C., (Ed.) 1991. Information technology manpower: Key issues in developing countries. New Delhi, India: Tata McGraw-Hill.,
11. Aladwani, A.M., 2001. IT planning effectiveness in a developing country. J. Global Information Technology Manage., 4(3): 51-65.
12. Neiderman, F., J.C. Brancheau and J.C. Wetherbe, 1991. Information systems management issues for the 1990s. MIS Quarterly, 15(1): 475-495.
13. Dickson, G.W., R.L. Leitheiser, J.C. Wetherbe and M. Nechis, 1984. Key information systems issues for the 1980s. MIS Quarterly, 8(3): 135-159.
14. Brancheau, J.C. and J.C. Wetherbe, 1987. Key issues in information systems management. MIS Quarterly, 11(1): 23-45.
15. Rockart, J.F. M.J. Earl and J.W. Ross, 1996. Eight imperatives for the new IT organization. Sloan Management Rev., 38(1): 43-55.
16. Bartczak, S.E., 2002. Identifying Barriers to Knowledge Management in the United States Military. (Doctoral dissertation, University of Auburn, Alabama, 2002). Dissertation Abstracts International, (UMI No. 3071350).
17. Ives, B. and M.H. Olson, 1981. Manager or technician? The nature of the information systems manager's Job. MIS Quarterly, 5(4): 135-159.
18. Brancheau, J.C., B.D. Janz and J.C. Wetherbe, 1996. Key issues in information systems management: 1994}95 SIM Delphi results. MIS Quarterly, 20(2): 225}242.
19. Harrison, W.L. and C.K. Farn, 1990. A comparison of information management issues in the United States of America and the Republic of China. Information and Management, McLeod, Jr. R. 1994. Information System Concepts. New York: MacMillan. 18: 177-188.
20. Yang, H.L., 1996. Key information management issues in Taiwan and the US. Information and Management, 30: 251-267.
21. Watson, R.T. and J.C. Brancheau, 1991. Key issues in information systems management: An international perspective. Information and Manage., 20(3): 213-223.
22. Deans, R.C. K.R. Karwan, M.D. Goslar, D.A. Ricks and B. Toyne, 1991. Identi"cation of key international information systems issues in US-based multinational corporations. Journal of Management Information Systems, 7(4): 27-50.
23. Dekleva, S. and J. Zupancic, 1996. Key issues in information systems management: a Delphi study in Slovenia. Information and Manage., 31: 1-11.
24. Watson, R.T., 1997. Key issues in information systems management: An Australian perspective} 1988. Australian Computer J., 21(3): 118-129.

25. Murdick. R.G. and J.C. Munson, 1986. MIS Concepts and Design. 2nd ed. London: Primtice-Hall.

26. Hussein, R., M.H. Selamat, A. Mamat and N. Abdul Karim, 2005. The Impact of Organizational Factors on Information Systems Success: An Empirical Investigation in the Malaysian Electronic-Government Agencies.: on line: kmap 2005. vuw. ac. nz/papers/The%20Impact%20of%20Org.Factors%20 on. pdf.,

27. Vincent S. Lai, 2001. Issues of International Information Systems Management: A perspective Of Affiliates. Information and Manage., 38: 253-264.

28. Jarvenpaa, S.L. and B. Ives, 1991. Executive involvement and participation in the management of information technology. MIS Quarterly, 15(2): 205-227.

29. Thong, J.Y.L., C.S. Yap, and K.S. Raman, 1996. Top management support, external expertise and information systems implementation in small businesses. Information Systems Res., 7(2): 248-267.

30. Chatterjee, D., R. Grewal and V. Sambamurthy, 2002. Shaping up for e-commerce: Institutional enablers of the organizational assimilation of web technologies. MIS Quarterly, pp: 65-89.

31. Byrd, T.A., V. Sambamurthy and R.W. Zmud, 1995. An examination of IT planning in large, diversified public organization. Decision Sciences, 26 (1): 49-73.

32. Armstrong, C.P. and V. Sambamurthy, 1999. Information technology assimilation in firms: The influence of senior leadership and IT infrastructures. Information Systems Res., 10(4): 304-327.

33. Abdollah zadeh Barforoash, Ahmad and Nastran Hajl Heydari 2002. Consideration strategic programming problems by in the view of annalists and specialists, management Knowledge, pp: 83-65.

34. Sharif Zadeh, Fattah and Has an Bodlai, 2006. knowledge management in administrative, productive and serrical organizations Tehran, university jihad publications, Allameh Taba Tabai University, pp: 320.

35. Fallah, Negin, 2006. Analyzing effective factors on using amount of information technology in Gillian provinces agriculture extension organization, B.A tithes of agricultural education and extension field - Tehran University Agriculture College, 24(2): 89-104.

36. Karimi, Neda, 2006. Knowledge management, needs of to day organization, Nama electronic magazine, Iran Scientific Documents and Information Search, 20(2): 83-65.