# THE IMPACT OF INFORMATION AND INFORMATION SYSTEMS ON MENGERAIL DECISION MAKING: THE CASE OF TELECOMMUNCATION SECTOR IN JORDAN

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#### ABSTRACT

The study investigates relationship between management information systems, information technology systems and managerial decision making in the telecommunication sector in Jordan. A survey questionnaire was sent to IS mangers, IS directors, IS professionals and staff in private company based in Jordan. The findings of the study reveal that there is a positive relationship between management information systems and managerial decision making. The study also found that there is a positive relationship between information technology systems and managerial decision making. On other hand in this study there are two types of statistical analyses that were carried out on the data obtained from the respondent. First, descriptive analysis was used to analyze the background of the respondent and the private companies; second, correlation analysis was used to analyze the relationship between management information systems, Information Technology systems and managerial decision making. And the Data were collected through questionnaires from the respondents of telecommunication sector in Jordan and the data were collected from the respondent by using structured questionnaires. A total 150 questionnaires for the study were distributed to the respondents by e-mail and also by hand. Out of 150 the questionnaires distributed, 135 were returned on 8 January 2010. The data of 150 participants are potentially available for analysis. Analyses were conducted using descriptive statistics and correlation analysis.

Key words: Decisions making, Information Technology, Management Information Systems

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#### **CHAPTER ONE**

#### **1.1 Introduction**

This century is different from the previous centuries because rapid and development in various fields of life and work within different economic sectors, the last of these developments, the so-called information revolution, which resulted as one of the important resources in different organizations. And management information systems are systems by which access information, to organization and processed as required and maintained. However, information technology is the reliable mean in information systems and its function. Information systems have become vital and important to all organizations, public and private sectors. This importance in information systems have recently increased as a result of the increasing complexity in the tasks of management organizations, and this complexity in the tasks refers to the affected organizations by environmental variables, whether economic, political or social, in which it operates, not only within the community, but also across communities and different state. And the successive, continuous and rapid methods and tools in the production of technological developments and transferring of information have increased the severity of complexity. Furthermore, the emergence of organizational forms like new giant corporations, international organizations, and multinational companies, have intensified competition and gravity, which may be necessary to take decisions quickly and effectively to enable the organization to continue in the competition and maintain its distinctive in the market.

The exploitation of opportunities and avoidance of threats and solving problems often begin through the decision-making processes, it has made efforts to improve the decisionmaking process and required for the collection, sorting, tabulating and analyzing the data,

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#### References

Ajayi, I.A. and F.F. Omirin, (2007). The use of Information Systems (MIS) in decision making in the South-West Nigerian Universities. Educ. Res. Rev. J., 2: 109-116.

Alhusniah, salim. (1998) management information system basics. First publisher. Waraq.

- Aqil, amil. (1996). Using information systems as a competition tool in Jordanian banking: case study. Al yarmouk university, irbid, Jordan.
- Al Bakri. Surya, Musalam. Abdul Hadi. (1998) introduction to MIS. Al shuaa publisher. Al iskandriah. EGYPT.
- Alsabagh, imad abdul wahab, (1996) computer within bussines administration: system, application, management. Library of dar althaqafah for publish, amman, Jordan.
- Alshamaa, khalil mohamad Hassan(1991). Management prencipilse with concentration on bussines admistration. Firt print, alkhulud publisher. Baghdad, Iraq.
- Alkilany, Othman and byati and hlal (2000). Approach to information system, first editin, dar almanahij for publishing, amman, Jordan.
- Ayoub, Nadia habib. (2000) the efficiency of technical information by perspective of beneficiary in Saudi small industries . sience managemt. 27(1): 161-185.
- Alkharabsheh, omar mohamad, (2002) youngers and the arts of decision making. Amman. Jordan
- Alsalmi. Alla abdul razzaq. (2000) information technology, second edition. Almanahij publisher, amman, Jordan.
- Alsultan, Ibrahim (2000) management information system (system approach), aldar aljamiyah, iskandaryah, Egypt

Alsalmi, ali (1997) management of human behavior, dar gharib publisher, kahira, Egypt.

Abdul fatah, nabil abdul hafith, (1995) the effect of organizing improvements on effective of decisions ability in service sector. Oman, value 4.

- Abdul hadi, mohamad fathi (1995), the information rule in decision making process and risk management, information Arabic magazine, 16 (2): 29-5.
- Abdul wahab, mohamad rifaat, Othman (2000) essentials of public management, dar almatbuaat. Iskandariah, Egypt.
- Alalawneh, ali ahmad. (2001) the effect of using computing information system: case study. Yarmouk university, irbid, Jordan.
- Alomary, (2001) analizing the reasons of defect in decision making process within Jordanian public sector, explorative study, alyarmouk university, irbid, Jordan.

Al mashriqy, Hassan ali. (1997), the theory of decision making, dar almasirah publisher,

amman.

- Ashill. N.J. and Jobber, D. (2001). Defining the Information Needs of Senior Marketing Executives: an Exploratory Study. Qualitative Market Research: An International Journal. 4(1): 52-61.Jordan.
- Al masri, ahmad (2000). Modern management, communication, information and decisions, youngers institution, qahira, Egypt.
- Al mouwsawy, minim zamzir (1998) management decision making, first edition, dar al yazoury publisher, amman, Jordan.
- Al- Gamdi, S.M.(1998). Obstacles to Successful Implementation of Strategic Decision: the British Experience. *European Business Review*, 98(6) 322-327.
- Burhan, Mohamad Nour, Waraq, Ghazi Ibrahim. (1998) information system computing. First publisher. Dar al manahij publisher. Amman. Jordan.
- Basi, R.S. (1998). Administrative Decision-Making: A Contextual Analysis. Management Decisions, Vol. 36, No. 4, PP. 232- 240.
- Bridge, J. (1989). Managerial Decisions with the Micro computers. Philip Allan, Oxford
- Cheney, H. and Dickson, W. (1982). Organizational Characteristic and Information Systems: An Exploratory Investigation. Academy of Management Journal. 25(1): 170-1284.

- Chen, Q. and cheng, H (2008). Research on resource –Based management information system competencies and strategy.
- Daft, R.L. & Sormunen, J. and Parks, D. (1988). Chief Executivescanning Environmental characteristics and Company Performance: Empirical study. *Strategic Management Journal*, Vol. 9, No. 1, PP.123-139.
- Daft, R.L. (1989). Organization Theory and Design. Third Ed., West Publishing Co. St.Paul.
- Daft. R. (1992). Organization theory and Design. N.Y. West Publishing Co.
- Dean, J.W. and Sharman, M.P. (1996). Dos Decision- Process Matters? A Study of Strategic Decision - Making Effectiveness, Academy of Management Journal. 39(2): 368-396.
- Delbeeq, A.L. (1967). The management of Decision Making within the Firm: Three strategies for three types of Decision - Making. Academy of Management Journal, December, PP. 329- 339, in Harrison, E.F. the Managerial Decision Making process, third Edition Houghton Mifflin, Co. 1987.
- Drucker, P. F. (1967). The Effective Executive. Harper and Row Publisher, New York.
- .Farid, osamah, aljoundy, hasan, (1991) management decisions making, ain shams university, Egypt.
- Gallen, T. (1997). The Cognitive style and strategic Decisions of Managers. Management Decision, Vol. 35, No. 7, PP. 541-551.
- Goodman, S.K. (1993). Information Needs for Management Decision Making. Records Management Quarterly, 27(4): 12. Gordon, G. & Pressman, I .1978.
  Quantitative Decision Making. Prentice- Hall, Englewood Cliffs, N J.
- Gore, WJ. and Mitchel. T.R. and Wright, B. (1992). Decision-Making, Research: some Prospects and Limitations, In Harrison, E.F. The Managerial Decision Making Process, third Edition, Houghton Mifflin, Co. 1987.
- Grieves, M. (1998). The Impact of Information use on Decision -Making: Studies in Five Sectors. Library Management, 19(2): 78-85.

- Haddad, L. (1996) The Characteristics of Decision Making in a well -functioning Economy. International Journal of Social Economics, Vol. 23, No. 4/5/6. PP. 207-220.
- Harrison, E.F. & Pelletier, M.A. (1997). Managerial Attitudes Towards Strategic Decisions: Maximizing Versus Satisfying Outcomes.
- Harrison, E.F. (1987) The Managerial Decision Making Process. Third Ed. Houghton Mifflin Co.
- Harrison, E.F. (1992). Some Factors Involved in Determining Strategic Decisions Success. Journal of Management. 17(3): 72-87.
- Harrison, E.F. (2000). Levels of strategic Decision Success. Management Decision, Vol. 38, No. 2.
- Heracleous, L. Th. (1994). Rational Decision- Making: Myth or Reality?, Management Development Review. Vol. 7, No. 4, PP. 16-23.
- Hickson, D. J. (1989). Decision and Organization: Processes of Strategic DecisionMaking. Public Administration (UK), winter, Vol. 67, No. 4. PP. 373-391.
- .Hreim hussain and others. (1998) management principles. First print dar alhamid publisher, Amman, Jordan.

Kapur, S.K. (1994). General Management First Ed. S.K. Publishers. New Delhi.

- Karim, N.S.A., Darus, S.H., and Hussin, R. (2006). Mobile phone applications in academic
  - Library services: a students' feedback survey, Campus-Wide Information Systems, 23(1), 35-51.
- Kuoa, Y.K. and K.D. Ye, (2010). How employees' perception of information technology application and their knowledge management capacity influence organizational performance.

- Longenecker, J. G. Pringle, CD. (1984). Management Sixth Ed. Charles E. Merrill Publishing Co., Columbus, Ohio.
- Laudon, K. and J. Laudon, (2009). Management Information Systems. 11th Edn., Prentice Hall, Upper Saddle River, New Jersey, ISBN: 13: 978-0136078463, pp: 627.
- Musalam, ali (1996) management information system, the center of management sustainable, iskanadariah university, Egypt.
- Mcleod, R. (1990). Management Information Systems: A Study of Computer Based Information Systems. 4th- ed. N.Y. Macmillan Publishing Co.
- Mintezberg. D.R. & Threat. (1976). The structure of Unstructured Decision Processes. Administrative science Quarterly, Vol. 21, No.1, PP. 246-275.
- Moody, P.H. (1988). Decision-Making: Proven Methods for Better Decisions. McGraw-Hill Inc., NY.
- Mitton, C., C. Adair, et al. (2007). "Knowledge transfer and exchange: review and synthesis of the literature." Milbank Quarterly 85(4): 729-768.
- Moore, C.L. (1982). Executives in Actions (A Guide to Balanced Decision Making in Management). Macdonald & Evans Ltd, London.

Morton, R. (1978). Social Theory and Social Structure. Free Press, New York.

Pelletier, M.A. (1998). A Paradigm for strategic Decision Success. Management Decision,

Vol. 33, No. 7, PP. 53-59.

- Rogers, P. and M. Blenko (2006). "Who has the D? How clear decision roles enhance organizational performance." Harvard business review 84(1): 52.
- Ross, J. E. (1977). Decision Traps: the Ten Barriers to Brilliant Decision Making and How to Overcome them, Simon and Schuster Inc. New York.
- Rauch, E. (1996). A Guidelines for Participation in Appropriate Decision Making. Management Development Review, Vol. 9, No. 4, PP. 29-34.
- Rockert, J. and Treacy, M. (1982). The CEO Goes On- line. Harvard Business Review, 60: 60-67.

- Reid, C. and Thomason, J. and Wallace Smith, J. (1998). Impact of Information on Corporate Decision - Making the UK Banking sector. Library Management, Vol. 19, No. 2, PP. 86- 109,
- Straub Josef, (1999) successful new manager, maktabat Jerri publisher, first edition, ryad.
- Simon, H.A. (1962). The New Science of Management Decision. Harper and Row Publishers Co. New York.
- Sekaran, U. (2000). research methods' for Business (3<sup>rd</sup> Edition). New York: hermitage publishing Services.
- Wally, S. and Baum, R.J. (1994). Personal and structural Determinants of the Pace of Strategic Decision Making. Academy of Management Journal, Vol. 37: No. 4, PP. 932-956.
- Yassine, saed ghalib. (1998) management information system, dar al yazoury publisher, amman, Jordan.
- Yaghi, mohamad abdul fatah, (1983) the process of decision making, management's Arabic magazine, edition 7, value 2:19-4.