

REFERENCES:

- Abramowitz, M. and David, P.A. (1996), 'Technological Change and the Rise of Intangible Investments: The U.S Economy's Growth-path in the Twentieth Century', in OECD, *Employment and Growth in the Knowledge-based Economy*, OECD, Paris, pp. 35-60.
- Alshehri, M. and Drew, S. (2010), "Challenges of e-government services adoption in Saudi Arabia from an e-ready citizen perspective", *World Academy of Science, Engineering and Technology*, vol. 66.
- AL-Shehry, A. M. (2008), *Transformation towards e-government in the Kingdom of Saudi Arabia: Technological and organizational perspectives* (PhD.thesis), De Montfort University, UK.
- AL-Shehry, A., Rogerson, S., Fairweather, B. and Prior, M. (2006), The Motivations for change towards e-government adoption: Case studies from Saudi Arabia, Brunel University, UK.
- Arrow, K.J. (1962), 'The economic implications of learning by doing', *Review of Economic Studies*, 29, pp. 155–73.
- Barro, R.J. (2001). 'Human Capital and Growth', *American Economic Review*, Vol. 91, No. 2, pp.12–17
- Borensztein, E. Greorio, J. and J-W. Lee, 1998, 'How Does Foreign Direct Investment Affect Economic Growth?', *Journal of International Economics*, 45(1998), pp. 115-135.
- Boudreau, John W., (2002). Strategic Knowledge Measurement and Management,

“Managing Knowledge for Sustained Competitive Advantage: Designing Strategies for Effective Human Resource Management,”
<http://www.ilr.cornell.edu/cahrs/WP2002.html>

Braverman, Harry. (1974): *Labor and Monopoly Capital: The Degradation of Work in the Twentieth Century*. New York: Monthly Review Press pp 14, 31, 37-8, 131, 156, 377, 389, 403-6

Cairney, T. (2000), ‘the Knowledge Based Economy: Implications for Vocational Education and Training, A Review of the Literature’, *Centre for Regional Research and Innovation*, University of Western Sydney and *Centre for Research and Learning in regional Australia (CRLRA)*, University of Tasmania, Hobart.

Cavana, R.Y., Delahaye, B.L. and Sekaran, U. (2001), *Applied Business Research: Qualitative and Quantitative Methods*, John Wiley, Sydney.

Cavaness, J. P. and Manoochehri, G. H. (1993), "Building quality into services", *SAM Advanced Management Journal*, vol. 58, pp. 4-4.Countries, OECD, Paris.

Creswell, J. W. (1998). Qualitative inquiry and research design: Choosing among five traditions. Thousand Oaks, CA: Sage.

Creswell, J. W . & Miller, D. L. (2000). Determining validity in qualitative inquiry. theory into Practice, 39 (3), 124 - 131

Cronbach L J, Gleser C G, Rajaratnam N & Nanda H. (1972).The dependability of behavioral measurements. New York: Wiley, 410 pp

Cowan, David, & Foray, (2000): The Explicit Economics of Knowledge Codification and Tacitness, *Industrial and Corporate Change*, VOL 9, NO. 2, June 2000.

Dahlman and Thomas, (2000); Dahlman and Jean-Eric, (2001); Dahlman and Anuja, 2005; WBI, 2007 *Diversification*, Washington DC.

Danny Quah (1997). Increasingly weightless economies. Bank of England Quarterly Bulletin, 37(1):49{56, February}.

David T. Coe, Elhanan Helpman, and Alexander W. Homaister (1997) .North-South R&D spillovers. Economic Journal, 107:134{149,January }

Drucker, P. (1994), *Post-capitalistic Society*, Harper Business, New York.

Drucker, P. (1998), 'From Capitalism to Knowledge Society', in D. Neef (ed.), *The Knowledge Economy*, Butterworth-Heinemann, Boston.

Drucker, P. (1999), 'Knowledge-worker Productivity: The Biggest Challenge', *California Management Review*, vol. 42, no. 2, pp.79-94.

Engel, H.-J. Brecht (1997), 'International R & D spillovers, human capital and productivity in the OECD economies: an empirical investigation', European Economic Review 41, pp. 1479–1488.

George Miaoulis, R. Dean Michener (1976): An Introduction to Sampling Kendall/Hunt Publishing Company,

Global Innovation Index 2013

Granstrand, O. (1999). *The Economics and Management of Intellectual Property: Towards Intellectual Capitalism*. Cheltenham, UK: Edward Elgar.

Hamdi, Amr. (2007): ICT in Education in Sudan, in: Survey of ICT And Education in Africa: Sudan Country Report -Infodev.

Hanushek, E. and Kimko, D. (2000). ‘Schooling, Labor-Force Quality, and the Growth of Nations’, the American Economic Review, Vol. 90, pp. 1184-1208.

Harvey, M & Metcalfe, J. S. 2005 ‘the Ordering Of Change: Polanyi, Schumpeter and the Nature of The Market Mechanism’ CRIC Discussion Paper 70, 2005 *Industry Studies*, vol. 1, no. 2, December, pp. 23-42.

Hayek, A. Friedrich, (1973): “Economics and Knowledge.” *Economica* , n.s., 4 (February): 33–54. Reprinted in James M. Buchanan and G. F. Thirlby, eds., *L.S.E. Essays on Cost*. London: Weidenfeld and Nicolson, 1973.

Holmes, D. (2001), *E-government: E-business strategies for government*, Nicholas Brealey, London.

Israel GD.(1992)The Evidence of Sampling Extension Program Impact. Program Evaluation and Organizational Development, IFAS, University of Florida. PEOD-5.

Jaffe, A. B., & M. Trajtenberg. (2002). *Patents, Citations, and Innovations: A Window on the Knowledge Economy*. Cambridge, MA/London: MIT Press.

Jaramillo, H., Lugones, G., & Salazar, M. (2001). Bogotá Manual – Standardization of indicators of technological innovation in Latin America and Caribbean Countries. Bogotá: RICYT, OAS, CYTED Program, Colciencias,OCyT.

Jaramillo, H., Lugones, G., & Salazar, M. (2001). Bogota Manual: Standardisation of Indicators of Technological Innovation in Latin American and Caribbean Countries, 2001

Jones, A., Sainsbury, B., Dowie, N., & Kavanagh, T. (2003). Measuring innovation performance - current status and future considerations. Canberra: Department of Industry, Tourism and Resources.

- Jyun-Yi. W. and H. Chih-Chiang, (2008), ‘Does Foreign Direct Investment Promote Economic Growth? Evidence from a Threshold Regression Analysis’, *Economics Bulletin*, Vol. 15. No. 12, pp. 1-10.
- Kermally, S., (2002), *Effective Knowledge Management: A Best Practice Blue Print*, West Sussex, John Willey & Sons, Ltd. Khartoum, Sudan,
- Kohpaiboon, A., (2003), ‘Foreign Trade Regimes and the FDI-Growth Nexus: A case /study of Thailand’, *the journal of Development Studies*, Vol 40, No. 2, pp.55-69.
- Louise C. Keely (1996). Patents: Do they matter? Working paper, LSE, December
- Lev, Baruch (2001). Intangibles: Management, Measurement, and Reporting. Washington, D.C.: Brookings Institute.
- Leydesdorff, L. (1990). The Scientometrics Challenge to Science Studies. *EASST Newsletter*, 9, 5-11.
- Leydesdorff, L. (1995). *The Challenge of Scientometrics: The Development, Measurement, and Self-Organization of Scientific Communications*. Leiden: DSWO Press, Leiden University; at <http://www.universal-publishers.com/book.php?method=ISBN&book=1581126816>.
- Leydesdorff, L. (1997). The New Communication Regime of University-Industry-Government Relations. In H. Etzkowitz & L. Leydesdorff (Eds.), *Universities and the Global Knowledge Economy* (pp. 106-117). London and Washington: Pinter.
- Leydesdorff, L. (1998). Theories of Citation? *Scientometrics*, 43(1), 5-25.

- Leydesdorff, L. (2004). The University-Industry Knowledge Relationship: Analyzing Patents and the Science Base of Technologies. *Journal of the American Society for Information Science & Technology*, 55(11), 991-1001.
- Leydesdorff, L. (2005). The Evaluation of Research and the Evolution of Science Indicators. *Current Science*, 89(9), 1510-1517.
- Leydesdorff, L., & I. Hellsten. (2005). Metaphors and Diaphors in Science Communication: Mapping the Case of 'Stem-Cell Research,' *Science Communication*, 27(1), 64-99.
- Leydesdorff, L., & M. Meyer. (2003). the Triple Helix of University-Industry-Government Relations: Introduction to the Topical Issue. *Scientometrics*, 58(2), 191-203.
- Leydesdorff, L., W. Dolsma, & G. Van der Panne. (2006). Measuring the Knowledge Base of an Economy in Terms of Triple-Helix Relations among 'Technology, Organization, and Territory'. *Research Policy*, 35(2), 181-199.
- Lundvall, B.Å. and Johnson, B. (1994), 'The Learning Economy', *Journal of IndustryStudies*, vol. 1, no. 2, December, pp. 23-42.
- Lundvall, B.Å. and Johnson, B. (1994), 'The Learning Economy', *Journal of*
- McGrath, J. E., Martin, J. and Kulka, R. A. (1982), *Judgment calls in research*, SAGE Publications Inc, Beverly Hills, CA.
- Machlup F., (1962). The Production and Distribution of Knowledge in

- the United States. Princeton, NJ: Princeton Univ. Press.
- Mannheim, Karl (2011a). "The Problem of Sociology of Knowledge," in Kurt H. Wolff (ed.), *From Karl Mannheim*, pp. 187–243. New Brunswick and London: Transaction Publishers.
- Metcalfe, J. S. & Ramlogan, R., (2005): 'Limits to the Economy of Knowledge and Knowledge of the Economy', *Futures*, 37, 655-674. 2005
- Metcalfe, J. S. (2005): 'Innovation, Competition and Enterprise: Foundations for Economic Evolution in Learning Economies' CRIC Discussion Paper 71. 2005. *Methods Approaches*, 2nd edn, Sage Publications, London.
- Metz, H. (1991), *a country study: Sudan*, Library of Congress, USA.
- Miaoulis G, Michener RD., (1976): An Introduction to Sampling. Dubuque, Iowa: Kendall/Hunt Publishing Company, 1976.
- Ministry of Education (2002), 'Secondary Education for a Better Future: Trends, Challenges and Priorities', paper presented at the International Conference on the Reform of Secondary Education,
- Ministry of Education and UNICEF (1999), 'Year 2000 Assessment Report',
- Ministry of Information (2012), *Sudan 2012*, Khartoum, Government of Sudan.
- Ministry of National Economy (MNE) (1996), *Statistical Year Book*, Information and Publication Center, Khartoum, Government of Sudan
- Ministry of National Economy (MNE) (2008), *Statistical Year Book*, Information and Publication Center, Khartoum, Government of Sudan
- Ministry of National Economy (MNE) (2008), *Statistical Year Book*, Information and Publication Center, Khartoum, Government of Sudan. *motivations for change towards e-government adoption: Case studies from Saudi Arabia*, , Brunel University, UK.
- Nelson, Richard and Sidney Winter (1977). "In search of a useful theory of innovation", *Research Policy*, 6,36-76.

Nelson, Richard and Sidney Winter, (1982): *An Evolutionary Theory of Economic Change* by Richard R. Nelson and Sidney G. Winter.

Nelson, Richard and Sidney Winter (1982): An Evolutionary theory of Economic Change, Cambridge, MA, Belknap Press of Harvard University.

Nelson, R., Phelps, E., (1966): Investment in humans, technological diffusion, and Economic growth. *American Economic Review: Papers and Proceedings* 61, 69–7

Neuman, W. L. (1994), Social research methods: Qualitative and quantitative approaches, 2nd ed, Allyn and Bacon, Boston.

Nonaka, I., & Takeuchi, H., (1995): *The Knowledge Creating Company: How Japanese Companies Create the Dynamics of Innovation*. New York: Oxford University Press.

OECD (1996), *National Innovation Systems*, OECD, Paris.

OECD (1997), *National Innovation Systems*, OECD, Paris.

OECD (1997), National Innovation Systems, OECD, Paris.

OECD (1999), *Managing National Systems of Innovation*, OECD, Paris.

OECD (1999), *Managing National Systems of Innovation*, OECD, Paris.

(1) oxford dictionary

OECD (2000): Is There a New Economy?, OECD, Paris.

OECD (2001): *The Wellbeing of Nations: The Role of Human and Capital*, Center for Education Research and Innovation Paper, OECD, Paris.

OECD (2001): The Well being of Nations: The Role of Human and Capital, Center for Education Research and Innovation Paper, OECD, Paris.

OECD (2001a): *The New Economy: Beyond the Hype*, Final Report on the

OECD Growth Project (2001), Executive Summary, OECD, Paris. 217

OECD (2001a), the New Economy: Beyond the Hype, Final Report on the
OECD (2001b), *Bridging the ‘Digital Divide’: Issues and Policies in OECD*
OECD (2001b), Bridging the ‘Digital Divide’: Issues and Policies in OECD
Countries, OECD, Paris.

OECD (2002), *Employment Outlook*, OECD, Paris.

OECD (2002), Employment Outlook, OECD, Paris.

Pallant, J., (2005): SPSS Survival Manual: A Step by Step Guide to Data Analysis
Using SPSS, 2nd edn, Allen and Unwin, Sydney. Perspectives, vol. 8, no. 1,
Winter, pp. 45-54.

Pilat Dirk & Frank C. Lee, (2001): “ Productivity Growth in ICT-producing and
ICT-using Industries: A source of Growth Differentials in the OCED?.
OECD Science, Technology and Industry Working Papers 2001/4, OECD
Publishing.

Pradhan, J. P. and N. Singh, (2009): ‘Outward FDI and Knowledge Flows: A
Study of the Indian Automotive Sector’, International Journal of Institutions
and Economics, Vol. 1, No. 1, pp. 156-187. Publications, London.

Remenyi, D., Williams, B., Money, A. and Swartz, E., (1998): Doing Research In
Business and Management; SAGE, London.

Rip, Arie and Henk van den Belt, (1989): Constructive Technology Assessment:
Toward a Theory, Enschede: University of Twente. Keynote paper for the
International Workshop on Constructive Technology Assessment.

Robert J. Holton & Bryan S. Turner, (1986): Talcott Parsons on Economy and
Society. London: Routledge.

- Romer, P.M. (1986), 'Increasing Returns and Long-Run Growth', *Journal of Political Economy*, vol. 94, pp. 1002-1037. 219
- Romer, P.M. (1990a), 'Human Capital and Growth: Theory and Evidence', *Carnegie-Rochester Conference Series on Public Policy*, vol. 32, pp. 251-286.
- Romer, P.M. (1990b), 'Endogenous Technological Change', *Journal of Political Economy*, vol. 98, no. 5, October, pp. S71- S102.
- Romer, P.M. (1994), 'The Origins of Endogenous Growth', *Journal of Economic Perspectives*, vol. 8, no. 1, pp. 3-22.
- Roscoe, J.T. (1975), *Fundamental Research Statistics for the Behavioral Sciences*, 2nd edn, Holt, Rinehart and Winston, New York.
- Sahal, D. (1981) Patterns of Technological Innovation Reading, Mass, Addison-Wesley.
- Sayyid, W.A. (2007), 'The Islamic Concept of Knowledge', *Al-Tawhid A Journal of Islamic Thought and Culture*, vol. 12, no. 3.
- Schumpeter, J. A. (1934) the theory of Economic Development, Cambridge, Mass, Harvard University Press.
- Schumpeter, J. A. (1939) Business Cycles, vols I and II, New York, McGraw-Hill.
- Schumpeter, J. A. (1944) 'the analysis of Economic change', reprinted in H. Somers(ed.) Reading in Business Cycle Theory, Philadelphia, the Blakiston Co.
- Shapira, P., Youtie, J., Yogeesanvaran, K. and Jaafar, Z. (2006), 'Knowledge Economy Measurement: Methods, Results and Insights from the Malaysian Knowledge Content Study', *Research Policy*, vol. 35, pp. 1522-1537, at: www.sciencedirect.com accessed 14- 2-2007.
- Smith, H. (1995), High School – The Neglected Majority: Whose Mid-Kids Are on Track for the Global Economy, in D. Neef (ed.) *Knowledge-based Economy*, Butterworth-Heinemann.

- Solow, R.M. (1994), ‘Perspectives on Growth Theory’, *Journal of Economic Perspectives*, vol. 8, no. 1, winter, pp. 45-54.
- Solow, R.M. (1994), ‘Perspectives on Growth Theory’, *Journal of Economic Perspectives*, vol. 8, no. 1, winter, pp. 45-54.
- Stiroh, K. (2001), “Information Technology and the U.S. Productivity Revival: What Do the Industry Data Say”, Staff Report No. 115, Federal Reserve Bank of New York, New York.
- Sudan and NTC (2008), *National Telecommunication Corporation*, available at:
<http://www.ntc.gov.sd> (accessed 26 April 2013).
- Sudan Central Bureau of Statistics (2009): National Baseline Household Survey:
North Sudan - Tabulation Report
- Sudan Chamber of Commerce and Industry (2005), *Statistical Year Book*, Khartoum, Government of Sudan.
- Sudan Chamber of Commerce and Industry (2006), *Statistical Year Book*, Khartoum, Government of Sudan.
- Sudan Government (2005), *Council of Ministers*, available at:
<http://www.sudan.gov.sd> (accessed 12 November 2013).
- Swan, T.W. (1963), ‘Golden ages and production functions’, in K.E. Berrill (ed.), Economic Development with Special Reference to East Asia, London: MacMillan and St Martin’s Press, and in A. Sen (ed.), *Growth Economics*, Penguin, 1970, pp. 203–18.
- Sveiby, Karl Erik (1997). *New Organizational Wealth: Managing & Measuring Knowledge-based Assets*. San Francisco: Berrett-Koehler Publishers.
- Sveiby, Karl Erik (1998). “Measuring Intangibles and Intellectual Capital -An Emerging First Standard,”
<http://www.sveiby.com/articles/EmergingStandard.html>. Thousand Oaks. CA.

Tabachnick, B.G., & Fidell, L.S. (2001). *Using Multivariate Statistics* (4th ed.). Boston, MA: Allyn and Bacon.

UNDP (2001). *Human Development Report 2001: Making New Technologies Work for Human Development*. United Nations Development Programme, Oxford University Press, New York, USA, and Oxford, UK.

Walsham, G. (1995), "Interpretive case studies in IS research: nature and method", *European Journal of Information Systems*, vol. 4, no. 2, pp. 74-81.

Walsham, G. and Bayama (1996), "Cross-cultural software production and use: A structurational analysis", *Management Information System Quarterly*, pp. 359-380. Washington, DC.

Weber, Max (2009 [1919]). "Science as a Vocation," in H.H. Gerth and C. Wright Mills (eds), *From Max Weber: Essays in Sociology*, pp. 129–156. London and New York: Routledge.

World Bank (1994), *Sudan's Sustainable Growth and Economic*

World Bank (1998), 'Knowledge for Development', World Development Report, World Bank, Washington, DC.

World Bank (2003), *Trade, Investment, and Development in the Middle East and North Africa: Engaging with the World*, Washington DC.

World Bank (2003), *World development indicators*, available at:

<http://www.worldbank.org/data/wdi2003/> (accessed 16 April 2008).

World Bank (2004), *Knowledge Economies in the Middle East and North Africa:*

Toward New Development Strategies, at:
<http://site.ebrary.com/lib/victoriauni/Doc?id=10048618andppg=3> accessed 15-9-2005. 222

World Bank (2006), *World Development Report: Equity and Development*,
World Bank (2007), *National e-government strategies: Designing for success*,
available at: <http://extsearch.worldbank.org/servlet/SiteSearchServlet?q=e-government> (accessed 9 June 2008).

World Bank (2009), *Definition of e-government*, available at:
<http://go.worldbank.org/M1JHE0Z280> (accessed 14 September 2009).
World Bank (2011), *Sudan: Country brief*, available at:
<http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/SUDANEXTN/0,,menuPK:375432~pagePK:141132~piPK:141107~theSitePK:375422,00.html> (accessed 11 September 2011).

World Bank Institute (2002), ‘Knowledge Assessment Methodology and Scorecards’, Knowledge for Development Program, World Bank, Washington, DC, at: <http://vle.worldbank.org/gdln/Programs/kam2002/methodology.htm> accessed 15- 8-2012

Yin, R. K., (1994), *Case study research: Design and methods*, 2nd ed, SAGE, Thousand Oaks. CA.

Yin, R. K.,(2003), *Applications of Case Study Research*, vol. 34, 2nd edn, Sage

Yin, R. K. (2003), *Case study research: Design and methods*, 3rd ed, SAGE,

Yin, R. K. (2009), *Case study research: Design and methods*, 4th ed, SAGE,

Yousef, T. (2004), ‘Development, Growth and Policy Reform in the Middle East and North Africa since 1950’, *Journal of Economic Perspective*, vol. 18, no. 3, Summer, pp. 91-116.

قائمة المراجع العربية:

- احمد مجذوب، 2011: نتیجة التناول للقطاعات الاقتصادية، في: واقع ومستقبل الاقتصاد السوداني، المنتدى الاقتصادي، مركز الراصد للدراسات السياسية والإستراتيجية ، العدد التاسع عشر.
- جمال داود سليمان، 2009: اقتصاد المعرفة، الطبعة الأولى، دار البيازوري للنشر والتوزيع، الدولية للاستثمارات الثقافية، مصر الجديدة .
- شوفي جلال، آر إيه بوكانان، 2009: تعريف التكنولوجيا : الآلة قوة وسلطة والإنسان منذ القرن 18 حتى الوقت الحاضر، عالم الفكر، العدد 259.
- صندوق النقد الدولي، 2011: تقرير حول وضع الاقتصاد السوداني بعد الإنفصال.
- عبد الخالق فاروق، 2005 :مشكلاته وأفق :اقتصاد المعرفة في العالم العربي تطوره، إصدار مكتب نائب رئيس مجلس الوزراء لشؤون الإعلام، شركة أبو ظبي للطباعة والنشر، أبو ظبي، الإمارات العربية المتحدة.
- عبد الرحمن توفيق، 2004 : الادارة بالمعرفة،مركز الخبرات المهنية للأدارة،القاهرة، مصر علا أحمد إصلاح، بتوماس ستيلوارت،2004: ترجمة رأس المال ثروة المعرفة الفكري، الدار للطباعة .
- عماد عبد الوهاب صباح،1998 : علم المعلومات، دار الثقافة للنشر والتوزيع، عمان،الأردن
- فليح حسن خلف،2007 : اقتصاد المعرفة، دار عالم الكتب الحديث،عمان،الأردن،
- مارش ، بيتر ، 2006: الهند جسر هوة التكلفة بين الاقتصادات المرتفعة والمنخفضة ، الاقتصادية بالتعاون مع فاينانشياł تايمز ، البريطانية .
- محسن أحمد الخضيري، 2001 اقتصاد المعرفة، مجموعة النيل العربية، القاهرة
- محمد عبد القادر محمد خير ، 2010: غياب التوازن التنموي في السودان ومترباته الاقتصادية والاجتماعية والسياسية ، ورشة عمل التنمية الاقتصادية من منظور إسلامي، مركز التویر المعرفي ، الخرطوم .
- هاشم الشمري و ناديا الليثي، الاقتصاد المعرفي،2008 الطبعة الأولى، دار صفاء للنشر والتوزيع، عمان،الأردن
- يوسف حمد الإبراهيم،2003 التعليم وتنمية الموارد البشرية في الاقتصاد المبني على المعرفة، مركز الإمارات للدراسات و البحث الإستراتيجية، أبو ظبي.

