PERCEPTION OF MANAGERIAL STAFF AND WORKERS ON LABOUR MOTIVATION AND TIMING OF OPERATION FACTORS IN AGRICULTURE PRODUCTIVITY IN LIBYA

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DEDICATION

To spirit my father and mother and to my wife and my dear children, my brothers and all the friends, who are always supportive when needed.



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ABSTRACT

This study considered the most important factors determining the success of any agricultural projects. These include planning; follow up, job satisfaction, organisation environment, training and scheduling. The major problems in this study are low productivity in agricultural projects due to low performance. The objectives of the study are (i) to determine the perspective of workers on labour motivation and timing of operations factors in agricultural projects in Libya. (ii) to study the perspective of managerial and supervisors on labour motivation and timing of operations factors in agricultural projects in Libya. (iii) to analyse the relationship between the elements in labour motivation and timing of operations in this study. (iv) to develop the agricultural projects productivity framework in Libya. Meanwhile, the research method used consists of secondary information through library study and primary data collected through questionnaire. The study had chosen five agricultural projects in Libya to conduct this research. The total collected sample size was 231 participants, 52 of them were managers and supervisors, and 179 workers. Two sets of questionnaire were used, the first includes 59 questions for the managers and supervisors and the second includes 35 questions for workers and staff. The results obtained from the reliability test, arithmetic mean, standard deviation and percentages showed that the biggest problem was the follow-up factor followed bytraining factor, in addition to the weakness was evident in other factors. Finally, the findings of this study suggests that these factors (job satisfaction, organisation environment, training, planning, scheduling and follow up), should be improved in order to increase the efficiency and the performance of Libyan agricultural projects, which will lead to increasing agricultural production.



ABSTRAK

Kajian ini mengambil kira faktor- faktor penting dalam menentukan kejayaan manamana projek pertanian. Ini termasuklah perancangan, susulan, kepuasan kerja, persekitaran organisasi, latihan dan penjadualan. Masalah utama yang dikenalpasti dalam kajian ini adalah produktiviti yang rendah dalam projek pertanian yang disebabkan oleh prestasi yang rendah. Objektif kajian ini adalah (i) menentukan perspektif pekerja tentang faktor-faktor motivasi buruh dan masa operasi dalam projek-projek pertanian di Libya. (ii) mengkaji perspektif pengurus dan penyelia tentang faktor motivasi buruh dan faktor masa operasi dalam projek-projek pertanian di Libya (iii) untuk menganalisis perhubungan antara elemen-elemen dalam motivasi buruh dan masa operasi dalam projek-projek pertanian di Libya; (iv) untuk membentuk rangka kerja produktiviti projek-projek pertanian di Libya. Manakala metod kajian yang telah digunakan dalam kajian ini terdiri daripada maklumat data sekunder seperti data dari perpustakaan dan data primer yang telah dikutip melalui borang kaji selidik. Sehubungan dengan itu, kajian ini telah memilih lima projek pertanian di Libya. Keseluruhan saiz sampel terdiri daripada 231 responden, 52 daripada jumlah tersebut adalah pengurus dan penyelia serta 179 orang pekerja. Dua set borang soal kaji selidik telah digunakan, yang pertama merangkumi 59 buah soalan untuk pengurus dan penyelia manakala yang kedua melibatkan 35 buah soalan untuk pekerja dan staf. Keputusan daripada ujian kebolehpercayaan, purata aritmetk, sisihan piawai dan peratusan menunjukkan masalah terbesar ialah faktor susulan dan diikuti oleh faktor latihan ditambah pula dengan kelemahan yang nyata untuk faktor yang lain. Akhir sekali hasil daripada dapatan kajian mencadangkan faktor-faktor (kepuasan kerja, persekitaran organisasi, latihan, perancangan, penjadualan dan susulan) perlu ditambahbaik untuk meningkatkan kecekapan dan prestasi projek-projek pertanian di Libya, yang akan meningkatkan produktiviti pertanian.

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LIST OF SYMBOLS AND ABBREVIATIONS

HR**Human Resource**

FAOFood and Agriculture Organization

CIA Central Intelligence Agency

USDA United States Department of Agriculture

ILO International Labour Organization

CIDA Canadian International Development Agency

Organization for Economic Cooperation and Development **OECD**

PERPUSTAKAAN TUNKU TUN AMINAH The Arab Organization for Agricultural Development AOAD

GDP

MMR

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Agriculture is a cultivation of life forms for food and other products which are used to maintain life whether it is through animals or plants. In a global perspective, industrial agriculture which is known as a modern farming using techno-scientific, economical and also political methods is based on a wider extent in the developing world today. According to International Labor Organization (1999), one third of the workers in the world were of those who worked in agriculture sector. Therefore agriculture is one of the dominant factors which make up the economy in the world. Taking into consideration the high competition from perspective of an individual company and the market as a whole, various methods are implemented in order to gain competitive advantage by reducing costs and increasing productivity. One of the essential methods of doing so is by adapting a management in production processes of the organizations.

One of the most significant sources of production derivation on which an organization should rely is the workforce. When it comes to the fields concerning the process of productivity and eventually the management, it is commonly known that private sectors are relatively better compared to public sectors as they are more efficient in production when there is often a lack of efficiency in processes of production in public sectors. However, it is also important to note that most of the private sectors are unable to operate without the support of public sector. As much as there is a need to rely on the public sector for private sectors, public sectors also to a large extent rely on the economic power of the private sector. Hence there is a bound that ties both sectors. Despite the fact that Libya consists of large areas made of

dessert, it has an estimated 2.2 million hectare of which 239.000 hectare specially devoted for agriculture. Instead of depending on foreign sources for food, Libya aims to make its food production at the level of self-efficiency by utilizing its cultivation. However there are certain difficulties facing Libyan farms with regards to agriculture. Some of the major problems faced by agriculture sector in Libya consist of shortage of water supply, the unstable climate, desertification, lack of technology, and development of agricultural projects (Nwer, 2005).

According to FAO (2002), the extension organizations face several challenges in Libya including: lack of knowledge and skills among employees, high cost of buying and maintaining hardware and Software and Legislative, policy and regulatory hurdles.

It is highly important to conduct researches regarding the potential methods in order to improve the effectiveness and efficiency in agriculture sector especially in the case of Libya as this country is highly dependent on its private sector to source its food and other products to sustain life of its population. One of the important methods is through employing management especially in public agriculture sector in Libya. This is because the population in Libya is expected to grow significantly in the coming years. Hence, food security is a very important matter to satisfy the demand of Libyan population and should be sufficient for the consumption of growing population. There are some services and products in which the public and private sectors compete. One of these industries is the agriculture sector in Libya. Agriculture sector is known to be the second highest contributory sector in the country's economy. However Libya still relies on outsourcing of particularly food. As defined by Nwer (2005), the major agricultural products in Libya include wheat, barley, vegetable and fruits, and dairy products. Libyan agriculture therefore is subject to a number of constraints. One of these constrains beside the climatically conditions is the shortage in water supply as Rajab (1995), attempted to explain that Libya was highly depending on underlying aquifers for its water needs. Has presented various measurements concerning water-management which include water transfer; reduction of irrigated areas; desalinization of seawater; and complementary measures, and claimed that if an extensive program for managing the country's finite water resources is not implemented, future generations may face serious waterresource problems. This would also reflect on the agriculture of the country. As mentioned above, Libya has limited sources therefore it is very important to put more

value into these sources when they are transformed into process of production. This study takes into account the agricultural project management, to study the factors that led to poor agricultural production in Libya. Because there is barely any research conducted concerning this topic thereby it can be highly beneficial for the agriculture sector as well as the economic situation of the country which also affects the society of Libya in general.

The agriculture in Libya is still an important sector although its contribution in national income has declined. Where its contribution in national income was 26% in 1954 (Gandeel, 1978 & Helen, 1987)., This percentage reduced to 5.6% in 1997, and 2.1% in 2007. Libya was spent 5.5 billion Dinars on the agricultural sector and the Libyan government has set a five-years plan from 2006 to 2010 which allocated 3.3 billion dinars to support the agricultural sector (General People's Committee for Agriculture, (Livestock & Marine, 2009). Although Libyan government is sending billions of dinars on agricultural sector, the sector is suffering from a low agricultural productivity because a lack of experts in management that lead to inefficient management to scarce resources, moreover making inefficient decision related to investment in technology and irrigation equipments (Porter & Yergin, 2006). The research was designed to answer objectives and questions associated with the topic of the study and to identify deficiencies in the production process in agricultural projects in Libya and how to create effective management of agricultural projects in Libya to increase agriculture production

1.2 The Background of the Study

The agricultural sector in Libya is a key source in providing some of the needs of the market of fruits and crops, whether from the private or public sector. In addition to that agriculture in Libya provides an important income to the national economy.

This study specified the factors contributed to these problems, which are low production efficiency and an increase in the cost of the productions of agricultural products as a result of low performance by managers and staff and workers in public agricultural projects. Studies also indicated that the agricultural sector in Libya

suffers from the misuse of human and material resources, efficient irrigation methods, high costs in harvesting that lead to continuous decrease in production levels Taher Azzabi (2009) & Abdul-Latif (2007) and Ahmed Laytimi (2002).

The agriculture sector in Libya is dominated by unskilled labor, which increased the costs and loss of huge volume of agricultural products. The lack of human resources in general and skilled labor should be the focus to effectively benefit from the expertise and constant encouragement and motivation of staff cycle to improve poor performance and productivity.

One of the most important factors that contributed to increased costs and lack of production efficiency in agricultural projects is in proper timing of operations in the farms, and weak commitment to time and poor time management. Moreover, failure to set specific timetables for agricultural operations to comply in accordance with the management plan would obviously lead to a delay in the production process and thus the lack of customer satisfaction with the quality of produced products from these farms and the lack of productivity and raising the cost of production in general. This research addresses some of the important factors that have a role in improvement of agricultural projects management are (job satisfaction, organization environment, training, planning, scheduling, follow up). In order to find appropriate solutions to raise the efficiency of the performance of these projects and thereby increase agricultural production in Libya in general.

1.2.1 The Land of Libya

Libya has a small population about 6,5 million comparing with its vast land area of 1.8 million square kilometers. The nation's population is highly concentrated about 90% along its Mediterranean coast, where land is arable and therefore densely inhabited strip includes all of its major cities, including the capital, Tripoli (population 1.1 million). The land is largely barren, and about 93% of the country's land is classified as either arid or semi-arid. Four percent is classified as suitable for pasture, and only 2% is categorized as arable and suitable for agriculture, with the absence of permanent rivers, only small and scattered oases interrupt the vast human and agricultural void throughout the country's central and southern expanse. The

largest and most important oasis is Kufra, in the southeast region. The arable areas is bounded between the Mediterranean Sea and the Sahara desert, where the climate in Libya along the coast is of Mediterranean type, other areas outside this boundary are dry and extreme desert type. The major climatic regions as reported by FAO (2010) include:

- The Mediterranean coastal strip with dry summers and relatively wet winters
- The Mountain Nafusah and Green Mountain highlands that experience a plateau type climate with higher rainfall and humidity and lower winter temperatures, including occasional snow on the hills
- The southern and the interior zones where pre-desert and desert climatic conditions prevail with scorching temperatures, large daily temperature extremes, and practically zero rainfall.

1.2.2 The Agricultural Production

The country's crops are always paltry due to moisture scarcity and marginal soils. Wheat averages just 0.8 tons per hectare and barley averages 0.5 tons per hectare. Both wheat and barley are harvested on about 170,000 hectares each. Wheat, however, is typically grown on better land and produces about 125,000 tons per year, while barley yields just 80,000 tons. Other grains produced include less than 10,000 tons of millet yearly, and 2,000 tons of irrigated corn. Other non-grain production is minor comparing to grains as shown in Figure 1.1. Statistics for Libyan agriculture production.FAO (2010).

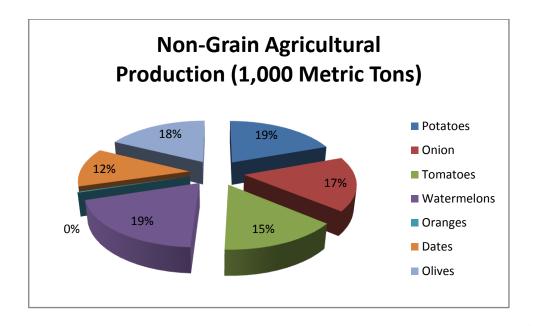


Figure 1.1: Non-grain production in Libya (FAO, 2010)

1.2.3 The Agricultural Arable Land

The 2,150,000 hectares is the total arable land used for agriculture from 1999-2010, therefore the agricultural area makes approximately 1.2% of Libya's total land area, and this area was not improved and increased during 2 decades. A yearly average of about 1.82 Million hectares is cultivated for annual crops; only about 0.34 Million hectares is for permanent crops. Permanent pasture area accounts for about 13.3 Million hectares the total arable area suitable for agriculture and labour force in Libya as shown in Table 1.1; which shows the land use from 1979-2010.

REFERENCES

- Aaker. (2001). Articles Related, a theory of motivation and self-regulation Research Papers and Publications Stanford University faculty.
- Abu-Baker Mustafa. (2007). Public policies for Administrative Development a holistic perspective -, the first conference. The national policy in Libya (Benghazi: Research and Consulting Center, University of Garyounis, 2007.
- Achutuni et al. (1995). Synopsis of Agro climatic Conditions in North Africa and the Middle East NOAA/NESDIS, Assessment and Information Services Center and Cooperative Institute for Applied Meteorology, University of Missouri-Columbia.
- Admin. (2011) MAIN elements to project management. Communication is key to successful of projects.
- Adrian furnham. (2005). Serving learning and scholarship in the business & management.
- Ahmed Laytimi. (2002). Agricultural situation report- Libya.
- Ahmed Laytimi. (2012), Market and Trade Policies for Mediterranean Agriculture:

 The case of fruit/vegetable and olive oil, Agricultural Situation Report –

 LIBYA.
- Al-Aydi. (2000). Impact of Incentives on Performance in Public Firms of Cotton Industry in Iraq: a field Study. Master Thesis. Al al-Bayt University, Mafraq, Jordan
- Alexander. (1987). The Social Psychology of Procedural Justice, Springer publishing, UK...
- Ali Abidar. (2002). Market and Trade Policies for Mediterranean Agriculture.

- Ali, S. (2005). Total Factor Productivity Growth and Agricultural Research and Extension: An analysis of Pakistan's Agriculture, 1960-1996. The Pakistan Development Review, 44 (4): 729-746.
- Alig et al. (2010). Forest Policy and Economics, USDA Forest Service, Pacific Northwest Research Station.
- Alina Voiculet et al. (2010). The impact of external environment on organizational development strategy, ConstantinBr[^] ancoveanu University, MPRA Paper No. 26303, posted 3. November 2010 07:22 UTC.
- Altman et al. (2007). "The Economics of Flexible Work Scheduling: Theoretical Advances and Paradoxes", in B. Rubin (ed.): Research in the Sociology of Work, Volume 17: Workplace Temporalities (Oxford, UK, JAI Press), pp. 313–342.
- Alston, et al. (2010). Persistence Pays: U.S. Agricultural Productivity Growth and the Benefits from Public R&D Spending, New York, Springer.
- Aki Pekuri, Harri Haapasalo, Maila Herrala. 2011. Productivity and Performance

 Management Managerial Practices in the Construction Industry,

 International Journal of Performance Measurement, 2011, Vol. 1, 39-58.
- Andrew Friffith. (2005). Measures of Job Satisfaction, Organizational Commitment...
- Ann et al. (2005). Application of Value Management in Project Briefing, volume 23 issue 7/8, pp. 330-342.
- Annette Bernhardt & Ruth Milkman. (2009) "Working without Laws", A Survey of Employment and Labor Law Violations in New York City, 75 Maiden Lane, Suite 601 New York, NY 10038.
- Anneke. (2012). Organisation of working time:Implications for productivity and working conditionsthe, European Foundation for the Improvement of Living and Working Conditions, Netherlands.
- Arab Organization. (2010). Arab Organization for Agricultural Development.

- Ardakani Azam et al. (20120. The effect of organizational environment on performance and job satisfaction (Case Study of Shiraz University), 1Master of Public Management Payam Noor University, Shiraz, Iran, J. Basic. Appl. Sci. Res., 2(8)8130-8139, 2012.
- Ardakani Azam et al. (2012). The effect of organizational environment on performance and job satisfaction (Case Study of Shiraz University), 1Master of Public Management Payam Noor University, Shiraz.
- Ashford et al. (1991). Self-regulation for managerial effectiveness: The role of active feedback seeking, Academy of Management Journal, 34, 251–280.
- Ashford &Tsui. (1991). Self-regulation for managerial effectiveness: The role of active feedback seeking. Academy of Management Journal, 34, 251.
- Åteg et al. (2004). Attractive work, from the employees' statements to the creation of Autor. (2001). Wiring the Labor Market", Journal of Economic Perspectives.

 Ayman Ibouhdid (2000)
- Ayman Ibouhdid. (2009). Journal of Agricultural. Agricultural research center, President of the Agricultural Research Center.
- Azzabi. (2000). Food s elf- s efficiency and agricultural res each in Libya.
- Baffes et al. (2005). Market Settings and Policies, Global Agricultural Trade and Developing Countries, World Bank.
- Balasundaran. (2007). The fundamental of farms planning, oxford publishing, Canada.
- Ballot Fakhfakh et al. (2002). 'Who benefits from training and R&D: the firm or the workers?', Economic Research Center Working Papers in Economics 02/01, Middle East Technical University, Ankara, Turkey.
- Bardhan Gupta. (2008). The planning in modern business environment, Asia publishing.
- Becker, G. S. (1964). Human capital. New York: Columbia University Press.

- Beintema et al. (2006). Stagnating investment in sub-Saharan African agricultural research.
- Bennel & Zulderma. (1989). Human Resource Management and Agricultural Research. Overview and Issues, proceedings of the regional workshop on Human Resource Management in NARS, Harare. Zimbabwe, 29-38.
- Bienzle H. (2006). A Survival Kit for European Project Management. Advice for Coordinators of Centralised Socrates Projects, 2nd edition: For projects of selection round 1-3-2001.
- Black & Lynch. (1996). beyond the incidence of training, US national bureau of Economic research.
- Blazewicz & Ecker. (1996). Today for the planning and for the control of complex projects and operations in ... The integration of Planning (Production Planning and Control) systems, WEB, simulation and optimization.
- Blessing Adegoke. (2011).Effect of Training on Employees' Productivity in Public Service, page 120.
- Bob Parsons. (2002). Production Risk: What Can You Do About It.
- Booth et al. (2002). Temporary jobs: Stepping stones or dead ends. Economic Journal 112 (480) F189 ñF213, URL.
- Brien et. Al. (2004). Human Resources Management, Oxford University.
- Brucker et al. (1999).Related articles Project scheduling is concerned with singleitem or small batch production ... European.
- Bryan Lawson. (2009). How to identify your organization's training needs, Oxford publishing.
- Burson et al. (2010). .ABCs of principal-agent interactions: Accurate predictions, biased processes, and contrasts between working and delegating", Organizational environment and Human Decision Processes.
- Cary McClain. (2006). The essentials in management of workforce, Thomson publishing.

- Caswell et al. (2003). Agricultural biotechnology: an economic perspective, Nova Publishers, New York.
- Chan, Lee. (2005). Successful strategies in supply chain management: Global Research.
- Christa Costas et al. (2009). Influencing the Organizational Environment to Create Healthy Workplaces. 2nd edition, University of Toronto, available at: web site at http://www.thcu.ca.
- Chen et al. (2007). Applying fuzzy method for measuring criticality in project network.
- Chiu S et al. (2010). Engaging Employees in Organizational Commitment: The Training Quality in Industrial Management, Department of Human Resource Development, Ching Kuo Institute of Management & Health, Keelung, CIA. (2004). The Library of Congress Country Studies; CIA World Factbook.

 CIA. (2009). Globalization
- CIA.. (2009). Globalization and the Politics of development in the Middle East.
- Coetsee L.D. (2003). "From Resistance to Commitment", Public Administration Quarterly, vol. 23, n 2.
- Cohn, E. & Addison, J. (1998). The economic returns to lifelong learning in OECD countries. Education Economics 6 (3), 253-307.
- Conant, R. T. 2009. Rebuilding resilience: Sustainable land management for climate mitigation and adaptation, Technical Report on Land and Climate Change for the Natural Resources Management and Environment Department. Rome, Food and Agriculture Organization of the United Nations.
- CIDA. (2003). Promoting sustainable rural development through Agriculture.
- Clark. (2006). Human Resources and Affirmative Action. The University of Southampton.
- Clive Fletcher. (2004). "Appraisal and feedback: making performance review work" Chartered Institute of Personnel and Development, CIPD Publishing.



- Corley Ashforth. (2008). Identification in organizations: An examination of four fundamental questions. Journal of Management, 34.325-374.
- Cullinane et al. (2006). The psychological contract: A critical review", International Journal of Management Reviews.
- Daft & Marcic. (2009). Management; the New Workplace', 6th International Student Edition, South-Western Cengage.
- Daniel Linman. (2010). Added Value of Facility Management and Performance Management.
- Daniel Wentland. (2006). Strategic Training of Employees. Page 49.
- Daria Morano. (2009). Libya: Climate and Geography 2009.
- D C Mishra. (1989). Monitoring extension programs and resources, Is Chief AMINA Secretary and Secretary Agriculture), Government of Goa, Panaji, Goa, India.
- Deepak Pore. (2013). Motivation Definition and Meaning.
- Dean. (2000). Development: Agriculture workers too poor to buy food, UN IPS, New York.
- Delame & Kramarz. (2001). General skills training in the workplace, the benefits for employers.
- Dockery et al. (1997). 'The Cost of Training Apprentices in Australian Firms', Australian Bulletin of Labour, vol. 23.
- Donald Cooper & William Emory. (1995). The research methods of business, economics and industrial.
- Dorndorf et al. (2000). Project Scheduling Problem with minimum and maximum time lags.
- Doublegist. (2013). Human Resources Training And Development Impact On Workers Productivity.
- Eleni Roulis. (2003). Transforming Learning for the Workplace of the New Millennium, R&L Education publishing.

- Emilio & Luca Stancaf. (2008). The Impact of Training on Product1v1ty: Evidence from a Large Panel of Firms, Econ0mics Department, University of Milan Bicocca, Milan, Italy.
- Erik. (2011). about the relationship among data, analytics, productivity, and profitability, cofounder Jeff, Butler University.
- Fahimifard & Kehkha. (2009). Application of Project Scheduling in Agriculture (Case Study: Grape Garden Stabilization). Department of Agricultural Economics Engineering, University of Zabol, Iran.
- FAO. (2009). Investment, High-Level Expert Forum on How to Feed the World, 12-13 October, Rome.
- FAO. (2012). The State of Food and Agriculture, Investing in agriculture for a better future.
- FAO. (2011). Activities in Libya, the Food and Agriculture Organization of the TUN AM United Nations.
- FAO. (2007). Climate Related Risks and Extreme Events.
- Fisher. (2004). More effective corporate boards and business teams, more efficient hiring and job, Rutgers University.
- Fladby, B. (1983). Household Viability and Economic Differentiation in Gama, Sri Lanka. Bergon Occasional Paper in Social Anthropology, No. 28. Bergon: University of Bergon.
- Flavin McDonald & Martha L. (1997)..Facing the Challenge of Racism and Race Relations: Democratic Dialogue and Action for Stronger Communities.
- Francesco Gol. (2001). Organizational environment: Foundations, Theories, and Analyses, Oxford University Press.
- Free encyclopedia. (2008). Forum mathematics development project.
- Gambia Monteny et al. (2006). A. Bannink, and D. Chadwick, Agriculture, Ecosystems, And Environment, Greenhouse gas abatement strategies for animal husbandry 112, pp. 163-170.

- Gandeel, A. R. A. (1978). Agriculture and its elements in Libya (The first eddition ed.): Al Dar Al Arabia for books.
- Garavan (1997). New perspectives on skill, Journal of European Industrial Training.
- Gaurav Akrani. (2010). Motivation Motivational Factors Incentives Theories of Motivation.
- Gayam et al (2006). Risk in Agriculture: a study of crop yield distributions and crop insurance, Massachusetts Institute of Technology, Engineering Systems Division.
- George Manning & Kent Curtis. (2006). The Art of Leadership Page 274, 2nd edition.
- Gertler. (2002). Food security and sustainable land use in sub-Saharan countries.
- Golden, et al. (2011). "Working Time in the Employment Relationship: Perceived Control and Work-Life Balance", in K. Townsend and A. Wilkinson (eds): Edward Elgar Handbook on Work and Employment Relations (Cheltenham, UK, Edward Elgar).
- Gollin et al. (2002). The Role of Agriculture in Development," Department of Economics Working Papers, Department of Economics, Williams College.
- Govindarajulu et al. (2004). Motivating Employees for Environmental Improvement. Industrial Management and Data Systems, 104 (4), pp. 364-372.
- Gregson & Liversey. (1986). Management and the Organization London.
- Groves et al. (1999). The Logic of Qualitative Survey Research and its Position in the Field of Social Research Methods.
- Guru Prabhakar. (2008). Emerging and Potential Trends in Public Management", Thomson publishing- USA.
- Hackman et al. (1976). "Motivation Through the Design of Work: Test of a Theory". Organizational Behavior and Human Performance 16 (2): pp. 250–279. doi:10.1016/0030-5073(76)90016-7. OCLC 492574633.

- Hamermesh. (2001). The changing distribution of job satisfaction Journal of Human Resources.
- Hardeker. (2004), Coping with Risk in Agriculture, 2nd Edition, CABI Publishing.
- Harri Jussila Ron, (2012). The relationship between life management, personal productivity, and time management.
- Hartline et al. (1996). The management of customer-contact service employees: An empirical investigation. Journal of Marketing, 60 (October), 52-70.
- Heidi Porter et al. (2007). The Influence of Supervisor Temperament on Subordinate Job Satisfaction and Perceptions of Supervisor Sociocommunicative Orientation and Approachability, Vol. 55, No. 1, February 2007, pp. 129–153, print/1746-4102 online # 2007 Eastern Communication Association.
- Helen, C. M. (1987). Libya: A Country Study. Retrieved october 21, 2010, from http://countrystudies.us/libya/62.htm.
- Hatch et al. (2006), "Organization Theory: Modern, symbolic, and postmodern perspectives." 2nd Ed. Oxford University Press ISBN 0-19-926021-4.
- Herzberg et al. (1959). The Motivation to Work. The motivation to work. New. York: Work and the nature of man.
- Hussein Abdalmtalb. 2012). Activating the role of agricultural industrialization in achieving Arab food security.
- IDA. (2007). The World Bank Group, International Development Foundation in Nicaragua.
- ILO. (2005).Initiative OF Economic and Social Development, economic development potentials and prioritize promising business sectors.
- International Labour Organization. (1999). Safety and Healthy in Agriculture, p. 77, International Labor Organization.
- ISIC (2013). The World Bank World (World Bank national accounts data, and OECD National Accounts data files.

- Issa Abdul-Latif. (2007). First National Conference for Public Policy at the University of Libya, Benghazi Garyounis.
- Ivan Kotliarov. (2008). Labour Motivation: An Axiomatic Vector Model. Saint-Petersburg University of Economics and Engineering (Russia).
- Jan Achterbergh& Dirk. (2010). Organizations: Social Systems Conducting Experiments Page 150.
- Jason Harris. (2008). Time Management Success Secrets.
- Jeva Anand et al. (2005). Punitive actions and consequences, Thomson publishing.
- Jim Riley. (2010). Explain what is meant by labour productivity and how it can be measured.
- Joanna Jozefowska. (2007). "Just-in-Time Scheduling", Models and Algorithms for Computer and Manufacturing Systems, Springer, New York.255 pp.
- Jody Kusek et al. (2010). Making Monitoring and Evaluation Systems Work, Page99.
- Jonathan M & Harris. (2001). Agriculture in a global perspective, Global Development and Environment Institute, Tufts University, working Paper No. 01-04.
- Jones Ishmael. (2008). the Human Factor: Inside the CIA's Dysfunctional Intelligence Culture. New York: Encounter Books ISBN 978-1-59403-382-7.
- Jonker & Pennink. (2009). Statistics for Business Journals; Series; Textbooks.
- Jon Warner. (2005). Time Management Effectiveness Profile Facilitators Guide -Page 85.Julia Kiely. (1986). "The Dynamics of Job Satisfaction, A Longitudinal Study", Personnel Review, Vol. 15 Iss: 4, pp.7 – 13.
- Julia Hall and Grant M. (2006). The Role of R&D in Productivity Growth: The Case of Agriculture in New Zealand.
- Journal of Agricultural. (2009). Agricultural Research Center for Journal Agricultural Products.

- Jianshou Jiang. (2008). Analysis of New Type of Farmers' Training Demands in the View of Village Cadres---Survey to 216 Village Cadres in Yangzhou City [J]. Agricultural Economic Problems, pp.71-74.
- Kelly et al. (2004). Value system in projects, products, processes and systems Value Management of Construction Projects.
- Kew et al. (2007). Asserts that leading indicators can either be subjective or objective, performance of their projects and workers.
- Khaled Ramadan al et. (2007). Measuring the Supply Response Function of Barley in Libya. Faculty of Agriculture, Tripoli- Libya.
- Khalil Hussein. (2006). Agricultural policies in the Arab countries. Public policy from the book Dar Manual Lebanese Beirut.
- Kiani et al. (2008). Total Factor Productivity and Agricultural Research
 Relationship: Evidence from Crops Sub-Sector of Pakistan's Punjab.

 European Journal of Science Research, Vol. 23 No.1, 2008, pp. 87-97.
- Korontzi et al. (2003). Schools, Influence of timing and spatial extent of savannah fires in southern Africa on atmospheric emissions, Journal of Arid Environments, 54, pp. 395-404.
- Kotler & Amstrong. (2010). Sampling techniques chosen best techniques to gain expressive to data.
- Krausz, M.; Sagie, A.; Bidermann, Y. 2000. "Actual and Preferred Work Schedules and Scheduling Control as Determinants of Job-Related Attitudes", in Journal of Vocational Behavior, Vol. 56 (part 1), pp. 1-11.
- Kriti Bardhan, Sanjeev Kapoor. (2009). Agricultural Project Management.
- Kumar et al. (2007). Managing weather and Climate Risks in Agriculture, Springer.
- Lambert S et al (2011). "Working Time in the Employment Relationship: Perceived Control and Work-Life Balance", in K. Townsend and A. Wilkinson (eds): Edward Elgar Handbook on Work and Employment Relations (Cheltenham, UK, Edward Elgar).

- League of Arab States. (2007). Arab Organization for Agricultural Development.
- Leone Atwater et al. (2010). "The Effects of Follow-up and Cynicism: An Upward Feedback Experiment." Arizona State University West Working Paper, 3rd edition.
- Lonnie Golden. (2011). The effects of working time on productivity and firm performance:a research synthesis paper, Tripartite Meeting of Experts on Working Time Arrangements.
- Li Jin. (2009). International Symposium on Information Engineering and Electronic Commerce, Research on Training Quality Evaluation of Enterprise Employees, IEEE DOI 10.1109/IEEC.2009.105.
- Library of Congress. (2005). Federal Research Division Country Profile: Libya.
- Lal Mervin Dharmasir. 2009. Measuring Agricultural Productivity Using the Average Productivity Index (API), Sri Lanka Journal of Advanced Social Studies Vol. 1 No.2. p 26.
- Lock A &Swed, (2003). Business strategies, Barron's Educational Series, New York.
- Lock. (2003). Project Management, Gower Publishing, and Eighth edition.
- Lydia Zepeda. (2001). Agricultural investment and productivity in developing countries, Food and Agriculture Organization of the United Nations.
- Lyle M et al. (2008). Competency Assessment Methods: History and State of the Art.
- Mahmud. (2003). The Performance Appraisal System in Libya.
- Manuela Zude. (2008). Optical Monitoring of Fresh and Processed Agricultural Crops.
- Manuela Zude. (2008). The impact of management on farms, Aston publishing Canada.
- Manuel. (1991). Elements Of Project Management: Plan, Schedule, And Control.
- Marian Haus. (2011).project Management Plan: The Basics.

- Mary Guffey & Richard. (2009). Essentials of Business Communication Page 133.
- Maslow. (1943). A theory of human motivation", Psychological Review, Vol. July1943, pp. 370-396.
- Mathibe. (2010). Knowledge of Project Management and Performance Management Development System.
- May-Chiun L et al. (2009). Human Resource Practices and Organizational.
- McGuire & McLaren, L. (2008). "The Impact of Physical Environment on Employee Commitment in Call Centres: The Mediating Role of Employee Well-Being", Presented at the Academy of Human Resource Development Conference, Indianapolis, Indiana, 1st- 4th March 2008.
- Melanie Franklin. (2011). Understanding project management qualifications.
- Merrie Barron & Andrew Barron. (2012). Project Management Skills for All Careers By Project Management, Open Resources and TAP-a-PM, Foreword by Daniel Dishno, Occupational, Training Institute, De Anza College, Edition 2 January.
- Michael L & Pinedo. (2011). Scheduling: Theory, Algorithms, and Systems.
- Moehring et al. (2000). Approaches to scheduling resource constrained projects comprise exact procedures.
- Mohammed Salem. (2008). Modern techniques to increase crops production in Saudi Arabia.
- Moorhead, G., & Griffin, R. W. (1998). Organizational Behavior: Managing people and organizations (5th ed.). Boston, MA: Houghton Mifflin.
- Moynihan & Wright. (2008). Public service motivation and interpersonal citizenship behaviors: Testing a preliminary model. International Public Management Journal 11, 89-108.
- Moynihan et al. (2007). Finding workable levers over work motivation: comparing job satisfaction, job involvement, and organizational commitment. Administration and Society 39.803 832.

- Mincer (1974). Schooling, experience, and earnings. New York: Columbia University Press.
- Minglun Jiang & Min Yu (2011). Analysis of Farmers' Willingness of Agricultural Techniques Training and the Restraining Factors Survey to 511 Farmers in Ningbo City, Department of Business Administration, Business school of Zhejiang Wanli University, Ningbo, Zhejiang, China,978-1-4244-8694-6/11/IEEE.
- Muhammad Ansar. (2009). Benefits of training for both the organization and employees.
- Mühlemann, et al. (2007). "An Empirical Analysis of the Decision to Train Apprentices", Labor: Review of Labour Economics and Industrial Relations. Vol 21, No. 3, pp. 419-441.
- Muusers& Suzanne. (2010). "Set Motivational Goals for Practice Growth", Journal of Financial Planning, September/October.
- Nasir Nadeem & Khalid Mushtaq. (2010). Role of Agricultural Research and Extension in Enhancing Agricultural Productivity in Punjab, Pakistan.
- Nelson W & Mark. (2006). Obligations in workplace, Rowman Altamira publishing.
- Noblet, rodweel. (2009). The Oxford Handbook of Organizational Well-Being, Oxford Handbooks Online.
- Noor Azzah Said. (2010). Job Characteristics and Job Satisfaction: A Relationship Study on Supervisors Performance, Universiti Teknologi MARA, Selangor, Malaysia, 978-1-4244-6567-IEEE.
- Nunnaly, J. (1978). Psychometric theory. New York: McGraw-Hill.
- Nupur Chaudhary & Bharti Sharma. (2012). Impact of Employee Motivation on Performance (Productivity) In Private Organization, Research Scholar, Suresh Gyan Vihar University, Jaipur, Associate Professor, St. Wilfred. College, Jaipur. p29, International Journal of Business Trends and Technology-volume2Issue4- 2012, ISSN: 2249-0183.

- Nwer & Bashir Ahmad. (2005). Application of Land Evaluation Technique in the North East of Libya, Faculty of Environment, National Soil Resources Institute, Canfield University, Silsoe England.
- Odugbesan. (1985). Motivation: A management tool. Perman Journal, 12 (1), 13 14.
- OECD. (2011). World Bank national accounts data and National Accounts data files.
- Oeij et al. 92012). Organisation of working time:Implications for productivity and working conditionsthe, European Foundation for the Improvement of Living and Working Conditions, Netherlands.
- Oliseh Fredrick. (2005). "Effect of Training on Employees' Productivity in Public Service Organization", Oxford publishing.
- Olusanya et al. (2012). Effective Planning and Organisational Productivity. ,IOSR Journal Of Humanities And Social Science (JHSS) , ISSN: 2279-0837, ISBN: 2279-0845. Volume 5, Issue 5 (Nov. Dec. 2012), PP 31-39.
- Oshagbemi. (1999). Academics and their managers: a comparative study in job satisfaction. Personnel Review. Vol. 28, Issue 1/2, p. 108-123.
- Oxford Libya Report. (2008). The Report: Libya, Oxford Business Group, pp. 200-212.
- Pam Vaccaro. (2009). Designs on Time Increase Job Satisfaction and Productivity.
- Panagiotis et al. (2010). Investigating the impact of motivation on loyalty and performance intentions in the Greek banking sector, 7th International Conference on Enterprise Systems, Accounting and Logistics (7th ICESAL 2010), 28-29 June 2010, Rhodes, Greece.
- Patterson et al. (1997). Impact of People Management Practices on Business Performance, (Issues in People Management No 22), Institute of Personnel and Development, London.
- Periad A. Edward. (2001). Organizational environment in modern business, 2nd edition, McGrohil Publishing, UK.

- Pierre Lopez & François Roubellat. (2010). Production scheduling.
- Porter et al. (1991). Motivation and Work Behavior, 5th Edition, p. 35. New York: McGraw-Hill, Inc., pp.
- Porter M.E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance, New York, NY: The Free Press.
- Porter, M. E., & Yergin, D. (2006). An Assessment of Competitieness of the Libyan Arab Jamahiriya. Tripoli: The General Planning Council of Libya.
- Prakash Prabhakar. (2008). Projects and Their Management. International Journal of Business and Management, Bristol Business School, University of the West of England, Bristol- BS16 1QY, UK.
- P. S. Amaza. (2006). Food Crop Production in West Africa. Journal of Agriculture and Rural Development in the Tropics and Subtropics, Volume 107, No. 2, 2006, pages 139–147.
- Pretty et al, (2003). Reducing food poverty by increasing agricultural sustainability in developing countries. Agriculture, Ecosystems & Environment, Issue 1, Pages 217–234.
- Psacharopoulos, G. (1985). Returns to Education: A further international update and implications. Journal of Human Resources 20, 583-604.
- Rajab M, Asswad. (1995). Agricultural Prospects and Water Resources in Libya, Royal Swedish Economy of Sciences.
- Ralston, Reilly. (1983). Encyclopedia of Computer Science and Engineering, 2nd Edition. New York, NY: Van Nostrand Reinhold Company Inc.
- Rao& Miller. (2004). "Expert systems applications for productivity analysis", Industrial Management & Data Systems, Vol. 104 Iss: 9, pp.776 785.
- Recio et al. (2002). A decision support system for farm planning using AgriSupport.

- REN Guoqiang, LUO Yuhui (2010). The Status, Problems and Policy Advice of Offfarm Employment Training for Rural Labors, School of Management Tianjin Univ. of Technology, 2010 Second International Workshop on Education Technology and Computer Science, 2010 IEEE DOI 10.1109/ETCS.2010.354
- Rhonda Abrams& Eugene. (2003). The Successful Business Plan: Secrets & Strategies, published by Rhonda Abrams, Canada.
- Rich Brott. (2009). Advancing a Successful Business: Managing Your Organization Well.
- Ricky & Griffin. (2006). Principles of Management Page 268.
- Riley Admond. (1996). Organizational Relationships", Thomson Publishing, 2nd edition.
- Robert L & Brian Leonard. (2011). Performance Management: Concepts, Skills, and Exercises.
- Robert N et al. (2009). Leadership: Theory, Application, & Skill Development Page 110.
- Robert K. (2009). Effective Project Management: Traditional, Adaptive, And Extreme.
- Rockström& Barron. (2007). Water Productivity in Rain fed Systems: Overview of Challenges and Analysis of Opportunities in Water Scarcity Prone Savannahs." Irrigation Science 25(3):299–311.
- Roeloelofsen P. (2002). The impact of office environments on employee Performance: The design of the workplace as a strategy for productivity enhancement. Journal of Facilities Management; 1 (3), ABI/INFORM Global pp. 247 264.
- Roger LeRoy Miller et al. (2010). "Business Law Today", Standard Edition Ninth (9th) Edition.
- Roscoe. (1975). The sample size for the study is determined by a rule of thumb, sample sizes between 30 and 500 are appropriate.

- Ross & Steven. (1973). "The economic theory of agency: The principal's problem", American Economic Review, 63 (2), pp. 134-139.
- Roy & Ananya. (2008). "Post-Liberalism: On the Ethico-Politics of Planning," Planning Theory, vol. 7, no. 1, pp. 92–102.
- Rudolf Melik. (2010). Rise of the Project Workforce, Chapter 9: Workforce Planning". PM Hut. Retrieved July 9, 2010.
- Rutherford & Brain. (2009). "The role of the seven dimensions of job satisfaction in salesperson's attitudes and behaviors", Journal of Business Research, Vol. 62, pp. 1146-1151.
- Saari. (2006). Productivity Theory and measurement in Business, Productivity handbook (In Finnish) MIDO OY. pp. 272.
- Salem Awad. (2009). relationship between productivity and salary to workers.
- Sanjeev Kapoor. (2007). Effective business plan, Asia publishing, 2nd edition.
- Sarah Ganly. (2010). How to increase productive behavior while decreasing counterproductive behavior in the workplace.
- Savery. (1989). The Influence of Job Factors on Employee Satisfaction", Journal of Managerial Psychology, Vol. 4 Iss: 1, pp.27.
- Sekar, C. (2011). Workplace Environment and its impact on organizational performance in public sector organizations, International Journal of Enterprise Computing and Business System International Systems, Vol. 1 Issue 1 January 2011.
- Sels, L., De Winne, S., Maes, J., Delmotte, J., Faems, D. and Forrier, A. (2006). Linking HRM and small business performance. An examination of the impact of human resource management practices on the productivity and financial performance of small business. Small Business Economics, 26 (1), 83-101.
- Sharma et al. (2010). Agriculture. Diversification: Problems and Perspectives, I.K International Publishing House Pvt. Ltd, India.

- Sharon et al. 92008). Industry training and productivity, Report to the Industry Training Federation, Available on: www.nzier.org.nz.
- Shigeyasu Sakamoto. (2010). Beyond World-Class Productivity.
- S. H, Libkuman& T. M. (2005). Adaptation-Level Theory, Opponent Process Theory, and Dispositions: An Integrated Approach to the Stability of Job Satisfaction. Journal of Applied Psychology. 90(6) 1044-1053.
- Smith et al. (2007). Agriculture. In Climate Change: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change.
- Sloan, Julie. (2010). The Workforce Planning Imperative JSM, ISBN 978192103375
- Stahl, Michael. (2004). Encyclopedia of Health Care Management. Sage Publications, Inc. p. 311.
- Sven Hansson &Elin Palm. (2005). "The ethics of workplace privacy", Peter Lang publishing.
- Subal Kumbhakar. (2009). Production Risk and Risk Preference Functions.

 Department of Economics, State University of New York.
- T.C. Cheng &Podolsky. (1996). Just-in-Time Manufacturing: An introduction.
- Teasdale et al. (1993). Soil Fertility and Fertilizers.
- Theodossiou, Vasileiou. (2008). Skill Jobs as Lancaster goods: Facets of job.
- Towers & Perrin and O.C. Tanner, (2008). Global Recognition Effectiveness Survey Joint study conducted.
- Turban et al. (2005). Decision Support Systems and Intelligent Systems, 7th Edition.
- USDA. (2004). Production Estimates and Crop Assessment Division Foreign Agricultural Service.
- USDA. (2004). Growing areas of wheat and barley in Libya.

- Vincent Amanor et al. (2014). Quality Management in a Changing Organizational Environment, George Morris Centre, pp. 1-12USA, 2014, Ministry of Agriculture.
- Wang et al. (2010). The future of good managers", McHrohil publishing, London
- Ward & park. (2010). "The employment incentives", Annual Review of business.
- Wedad Noorah. (2009). The reality of human resources in the organization of economic. University Guelma...
- Weiss & H. M. (2001). Organizational environment: affect in the workplace, Annual Review of Psychology 53. 279-307. p. 282.
- William G & Zikmund. (2003). Main Text Book. Research Methods, Reliability 7th edition, validity, Data entry, coding, editing (SPSS), Preparation of code book AMINAH Data Analysis.
- William M.K. (2006). The Research Methods Knowledge.
- Winder, K.L. 2009. "Flexible Scheduling and the Gender Wage Gap", in The B.E. Journal of Economic Analysis & Policy, Vol. 9, No. 1 (Topics), Article 30.
- Witney. (1988). Choosing and using Farm Machines. Redwood Books, Trowbridge. Zargar, M..
- Wolf, E. & Beblo. (2004). Does work time flexibility work? An empirical assessment of the efficiency effects for German firms.
- World Bank (2005) World Bank Report. India Development Strategy Paper
- World Bank. (2003). World Bank Report, World Development Indicators, the World Bank, Washington D.C.
- World Bank. (2005). Institute of the World Bank, Management of governance and anti-corruption, the basic indicators governance management, of (Washington).

- Yamaguchi.(2008). Overemployment: The structure, determinants, and countermeasures of involuntarily long work hours, Discussion Paper No. 08-J-051 (RIETI, Research Institute of Economy, Trade and Industry).
- Yang et al. (2011). "The paradox of de-coupling: A study of flexible work program and workers' productivity", in Social Science Research, Vol. 40, No. 1, pp. 299-311.
- Yanfei (2011). Organizational socialization and employee job performance: An examination on the role of the job satisfaction and organizational commitment Service Systems and Service Management (ICSSSM), 2011 8th International Conference on Digital Object Identifier: 10.1109/ICSSSM.2011.5959413.