The 4th Annual Conference of Economic Forum of Entrepreneurship & International Business

Paris, France

2014

ECO-ENA Researches & Policy Analyses

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada

The Annual Conference of Economic Forum of Entrepreneurship & International Business
ACEFEIB

The Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business

January 31st, 2014

<u>Venue:</u> London University Institute in Paris, Paris, France

2014

Published by: ECO-ENA: Economics & ECO-Engineering Associate, Inc.

ECO-ENA Researches & Policy Analyses

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada

ISSN 1925-461X = the Annual Conference of Economic Forum of Entrepreneurship & International Business (Online): Library & Archive Canada

ISBN: 978-0-9869581-2-0 = the Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business (Online): Library & Archive Canada

Printed by

ECO-ENA Researches & Policy Analyses

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada

The Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business

January 31st, 2014

Venue: London University Institute in Paris
Paris, France

Conference Proceedings

Ottawa, Ontario, Canada

2014

The Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business

January 31st, 2014

Editors

Dr. Ghada Gomaa A. Mohamed
ECO-ENA, Inc.
Ottawa, Ontario, Canada

gmohamed@eco-ena.ca

Dr. Morrison Handley-Schachler
Teesside University,
Middlesbrough, England, UK

M.Handley-Schachler@tees.ac.uk

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada
www.eco-ena.ca

The Annual Conference of Economic Forum of Entrepreneurship & International Business (ACEFEIB)

The Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business
January 31st, 2014

Venue: London University Institute in Paris
Paris, France

Conference Organizer

Dr. Ghada Gomaa A. Mohamed
ECO-ENA, Inc., Ottawa, Ontario, Canada
gmohamed@eco-ena.ca

Conference Chair

Dr. Morrison Handley-Schachler
Teesside University, Middlesbrough, England, UK
M.Handley-Schachler@tees.ac.uk

Organized & Sponsored by:

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada

ECO-ENA: Economics & ECO-Engineering Associate, Inc.

ECO-ENA: Economics & ECO-Engineering Associate, Inc. is officially incorporated at the federal government of Canada as a research, policy analysis, and consulting corporation. It's located in Ottawa, Ontario, Canada. It seeks mainly to make profits. It, however, offers not-for-profit academic services in some of its parts to encourage young generations of researchers and to give chances for initiative ideas and new minds in the field.

ECO-ENA: Economics & ECO-Engineering Associate Inc., Canada is also a publisher that publishes scientific journals in economics, business and related fields, in addition to practitioners' papers and articles. It sponsors different peer reviewed scientific journals. It deposits the collected material of its journals in the Library & Archive Canada.

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada provides also training programs to individuals, companies, and different types of institutions.

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada provides also statistical analysis services to academics. It addition it provides Economic consultations and comprehensive feasibility studies to companies, government agencies, academic institutions, and international agencies.

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada adopts different research forums in different fields related to economics & business studies in general.

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada sponsors the Annual Conference of Economic Forum of Entrepreneurship & International Business: ISSN 1925-4601 (CD-ROM) and ISSN 1925-461X ((Online): Library & Archive Canada. The conference collects successful papers in Economics & Business from all around the world and discusses them in a big symposium. The conference proceedings enable new ideas of research to reach out via a recognized worldwide outlook. The first annual conference of ECO-ENA, Inc. was held in Cairo, Egypt under the organization of the Canadian Expertise House for Advanced Economic Studies, Cairo, Egypt. The second annual conference of ECO-ENA, Inc. was held in the University of Ottawa, Ottawa, Canada. The third annual conference of ECO-ENA, Inc. was held in the University of Oxford, Oxford, UK. The fourth annual conference of ECO-ENA, Inc. was held in the University of London Institute in Paris, Paris, France. ECO-ENA, Inc. is planning to hold its fifth annual conference in Harvard University, Harvard, UK on January 29th & 30th, 2015. ECO-ENA, Inc., Canada holds its annual conference every year in a different country. ECO-ENA: Economics & ECO-Engineering Associate Inc., Canada also provides open seminars & lectures by international experts in the field.

ECO-ENA, Inc. holds also its annual meeting of financial economics; CEHAES International Conference of Financial Economics in the third day of its annual conference of economic forum of entrepreneurship & international business every year in a different country if announced with its regular annual conference.

ECO-ENA, Inc. organizes another annual conference on Islamic Economics & Islamic Finance every year in London, UK and in Toronto, UK. It also provides training and consulting services in the field of Islamic Economics and Islamic Finance in general.

ECO-ENA, Inc. organizes another annual conference on Agricultural Economics and Agribusiness in London, UK in addition to another annual conference on Cultural Economics: Immigration Matters & Human Resources Management in Oxford, UK. It also provides training and consulting services in those fields.

ECO-ENA, Inc., Canada has been accepted to be a potential services provider to 6- UN international agencies; i.e., the UN Women, the WIPO, the ILO, the UNICEF, the IFAD, and the ITC. It is also a registered partner at CIDA Canada; the Canadian International Development Agency.

ECO-ENA: Economics & ECO-Engineering Associate, Inc., Canada abides by international ethical rules of business.

ECO-ENA, Inc. does not have branches anywhere in the world. It's only located in Ottawa, Ontario, Canada. It however provides services globally.

Ghada Gomaa

Dr. Ghada Gomaa A. Mohamed
President;
ECO-ENA: Economics & ECO-Engineering Associate, Inc.
Ottawa, Ontario, Canada
gmohamed@eco-ena.ca
www.eco-ena.ca

The Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business

SELECTED ACCEPTED PAPERS

Dear Reader,

I would like to express my gratitude to all those who helped to make the 4th. Annual Conference of the Economic Forum of Entrepreneurship & International Business at the University of London Institute in Paris a success, especially to those who contributed an excellent selection of papers for discussion and to those who took part in the discussions.

The conference opened with a keynote speech from Prof. Thomas Henschel from the Hochschule für Technik und Wirtschaft in Berlin on the subject of access to business finance for Small and Medium Sized Enterprises (SMEs), constituting the first of a number of discussions of themes relating to SMEs, which continue to form a significant and vital component of the global economy. Norhayati Sulaiman, from RMIT University, Australia, presented a paper co-authored by Clive Morley, also from RMIT University, and Amalia Di Iorio of La Trobe University *Clarifying the financial literacy dimensions for the performance of small and medium enterprises (SMEs),* in which evidence was presented to show that financial awareness and knowledge have a significant impact on SMEs' financial performance, while financial attitudes had little impact. Later in the day, Anke Valentin, of the Technische Hoschschule Mittelhessen and Edinburgh Napier University, presented a paper written jointly with Prof. Henschel, on *SME lending relationships: A learning perspective*, particularly looking at credit guarantee schemes in Germany and examining their ability to provide opportunities for lenders to learn about SMEs while lending to them in conditions of reduced financial risk before going on to develop a longer-term financial relationship with them. Their research provides evidence that credit guarantee schemes do offer opportunities for banks to learn about borrowers and to reduce information asymmetries between SME staff and bank staff. In a paper entitled *Leadership and organisational performance: an investigating of SMEs in Malaysia*, Ahmad Arham, of RMIT University and Universiti Teknologi MARA (UiTM), and Nuttawuth Muenjohn and Carlene Boucher of RMIT University showed the importance of transformational leadership in SMEs, while Mona Farid Badran from Cairo University, in her paper on *Access and use of ICTs in female-owned SMEs in Arab Countries, and Brazil: A comparative study*, showed the importance of policies to improve women's access to information technology in promoting gender equality and economic development. Finally, Ramadan Atniesha and Nassr Ahmad presented a *Literature review on factors influencing accessing bank loan issues of small and medium enterprises (SMEs) – Country case study*, taking up the topic of access to finance for SMEs, this time in Libya. In addition to the papers presented on the theme of SMEs, a panel discussion led by Brian Moran on the differences between the entrepreneur and the small business owner provided an opportunity for delegates to discuss the features of the entrepreneurial mindset and outlook.

We also welcomed several papers relating to larger established enterprises, including the paper on *Risk Premiums in Interconnected Australian Electricity Futures Markets* by Rangga Handika and Stefan Trück from Macquarie University, Australia, which showed that electricity futures prices tended to be considerably higher than final spot prices on the delivery date, indicating a substantial risk premium demanded by sellers and paid by buyers, although there was some seasonal variation, with the risk premium tending to be in the opposite direction in the second quarter of the year. On a related theme, we are also happy to include a paper by Mohammad Mahasneh and Qais Alsafasfeh from Tafila Technical University, Jordan, on *Smart grid policy and law – Country case study,* discussing the energy supply grid in Jordan.

Dr Dai Yun, from Xi'an Jiaotong Liverpool University and Morrison Handley-Schachler from Teesside University, presented a paper on *Performance measurements in the UK biotechnology companies,* showing that, notwithstanding the importance of long-term technological research and development for these companies, there was a considerable preference for performance measures focusing on more immediate factors relating to finance and customer focus. Nassr Ahmad and Mustafa Treki presented a paper on *Privatization of State-Owned Enterprises (SOEs) in Libya: An evaluation of the policies, procedures and experience* which gave a fascinating insight into the partial privatization of Libyan Arab Airlines and contrasted the partial privatization of the airline in a context of limited political support for the move with the more decisive privatizations of airlines in other countries.

Bilal Fayiz Omar of the University of Petra presented a joint paper with Nidal Zalloum of Al-Balqa Sciences University, Jordan, on *The effect of compliance to mandatory disclosure on the extent of voluntary disclosure: Case study,* in which hypotheses were proposed on the relationship between mandatory and voluntary disclosure. Research on this topic is of significant importance because the overall effect of mandatory disclosure requirements may extend far beyond the strict requirements of laws and standards. A further paper concerning policy, this time on social welfare, was presented by Hebatallah Ghoneim of the German University in Cairo, concerning *Ration card: Targeting, leakage and cost – Country case study.* This paper discussed the introduction of the smart ration card for families entitled to assistance with basic living essentials in Egypt, the cost of the system and leakages of assistance to middle income groups and those not entitled to it. There was found to be considerable evidence of leakage and a need for systems to be improved further.

Finally, Dr Ghada Mohamed presented a paper on the subject of *Micro-finance, poverty reduction and impact analysis – Country case study.*

We look forward to welcoming further speakers to our future conferences, including next year's 5th. Annual Conference of the Economic Forum of Entrepreneurship & International Business at Harvard University.

I would also like to express my gratitude to Dr Ghada Mohamed for her skills in organizing the conference, which were, as always admirable. I would also like to extend my thanks on behalf of the conference team and delegates to the staff of the University of London Institute in Paris for providing an excellent venue and conference facilities.

A selection of the above papers is to be found in the following pages. We are grateful to those authors who have given their permission for their papers to be published in these proceedings.

Yours Sincerely,

M. Handley-Schachler.

Dr. Morrison Handley-Schachler
The Chair of the Conference
ECO-ENA, Inc. Vice President of Research & Policy Analysis

The Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business - (*FACEFEIB*)

Main participants *(Alphabetically)*

- Ahmad Fadhly Arham
- Anke Valentin
- Bilal Fayiz Omar
- Brian Moran
- Dai Yun
- Ghada G. A. Mohamed
- Hebatallah Ghoneim
- Mohammad Mahasneh
- Mona Farid Badran
- Morrison Handley-Schachler
- Mustafa S. Treki
- Nassr Ahmad
- Norhayati Sulaiman
- Ramadan Atniesha
- Rangga Handika
- Thomas Henschel

Other contributors *(Alphabetically)*

- **Abdoulie Saidy**
- **Benard Besong Ojong** *
- **Edrisa Dibba***
- **Faisal Alanezi** **
- **Fakunle Kabiru** *
- **Mina Boshra***
- **Okunola Abayomi** *
- **Yaakov Weber***
- **Yeye Sunday Karinatei** *

***(Couldn't attend)* ** *(Attended)*

The Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business (FACEFEIB)

Conference Program

Friday, January 31st, 2014

London University Institute in Paris

Granville Barker Room (Research Centre) *8:00 am to 6:30 pm*

11 Rue de Constantine - 75007 Paris, France

Intellectual Symposium

Program

8:30 am – 9:00 am: Reception & Morning Refreshments

9:00 am – 9: 40 am: keynote speech by ***Thomas Henschel***

Small and Medium-sized Enterprises and their access to Business Finance

9:40 am – 10: 00 am: Open Discussion

Chaired by Thomas Henschel & Handley-Schachler

10:00 am – 12:00: Sessions on micro & macro-dimensions of financial risk & financial analysis

10:00 am – 10:20 am Norhayati Sulaiman

Clarifying the financial literacy dimensions for the performance of small and medium enterprises (SMEs)

A paper joined with Clive Morley and Amalia di Irio

10:20 am – 10:40 am Rangga Handika

Risk premiums in interconnected Australian electricity futures markets

A paper joined with Stefan Truck

10:40 am – 11:00 am Bilal Fayiz Omar

The effect of compliance to mandatory disclosure on the extent of voluntary disclosure: case study

A paper joined with Nidal Zalloum

11:00 am – 11:20 am Anke Valentin

SME lending relationships: A learning perspective

A paper joined with Thomas Henschel

11:20 am – 12:00: Sessions Discussions of papers by Norhayati Sulaiman, Rangga Handika, Bilal Omar, and Anke Valentin

12:00 – 1:00 pm: Lunch Break

1:00 pm – 3:00 pm: Sessions on entrepreneurship & leadership and business in general with case studies from different countries

1:00 pm – 1: 20 pm: Ahmad Arham

Leadership and organizational performance: An investigation of SMEs in Malaysia

A paper joined with Nuttawuth Muenjohn and Carlene Boucher

1:20 pm – 1: 40 pm: Mona Farid Badran

Access and use of ICTs in female-owned SMEs in Arab countries, and Brazil: A comparative study

1:40 pm – 2: 00 pm: Dai Yun

The performance measurements in the UK biotechnology companies

A paper joined with M. Handley-Schachler

2:00 pm – 2: 20 pm: Nassr Ahmad & Mustafa S. Treki

Privatization of state-owned enterprises (SOEs) in Libya: An evaluation of the policies, procedures and experience

2:20 pm – 3:00 pm: Sessions Discussions of papers by Ahmad Arham, Mona Badran, Dai Yun, and Nassr Ahmad

3:00 pm – 3:30 pm: Coffee & Refreshments Break

3:30 pm – 4: 00 pm: Keynote Speah by Brian Moran, USA: "*The Three Types of Business Owners: Small Business, Passionate Small Business and Entrepreneur*."

4:00 pm – 6:00 pm: Sessions on economic aspects of business environment & development and government policy analysis

4:00 pm – 4: 20 pm: Ramadan Antniesha

Literature review on factors influencing accessing bank loan issues of small and medium enterprises (SMEs) – Country case study

A paper joined with Nassr Ahmad

4:20 pm – 4: 40 pm: Hebatallah Ghoneim

Ration card: Targeting, leakage and cost – Country case study

4:40 pm – 5: 00 pm: Mohammad Mahasneh

Smart grid policy and law – Country case study

A paper joined with Qais Alsafasfeh

5:00 pm – 5: 20 pm: Ghada Mohamed

Micro-finance, poverty reduction and impact analysis – Country case study

5:20 am – 6:00: Sessions Discussions of papers by Ramadan Antniesha, Hebatallah Ghoneim, Mohammad Mahasneh, and Ghada Mohamed

6: 00 pm: Closing

Acknowledgement

ECO-ENA, Inc. would like to thank all staff at the University of London Institute in Paris & the British Council in Paris for wonderful hospitality.

ECO-ENA, Inc. would like to thank all participants & contributors to the conference.

ECO-ENA, Inc. Organizing team

Conference Proceedings

The Annual Conference of Economic Forum of Entrepreneurship & International Business: ISSN 1925-461X: Library & Archive Canada

&

The Fourth International Conference of Financial Economics: ISBN: 978-0-9869581-2-0: Library & Archive Canada

We look forward to welcoming you again to ECO-ENA, Inc.'s Upcoming conferences

Our regards;

ECO ENA Researches & Policy Analyses

ECO-ENA, Inc., Canada
www.eco-ena.ca

The Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business (FACEFEIB)

Abstracts

ISBN: 978-0-9869581-2-0 On-line: Library & Archive Canada

- **Paper title:** Small and Medium – Sized Enterprises and their Access to Business Finance

Author: Prof. Thomas Henschel, *Hochschule für Technik und Wirtschaft, Berlin*
Thomas.Henschel@HTW-Berlin.de

Abstract: The papers address the SME and its role in the European economy.

Keywords: SME, EU

- **Paper title:** Clarifying the Financial Literacy Dimensions for the Performance of Small and Medium Entreprises (SMEs)

Author: Norhayati Sulaiman, *RMIT University, Melbourne, Australia*

Co-author: Clive Morley and Amalia Di Iorio

Abstract: As financial markets become progressively more sophisticated, financial literacy is becoming increasingly important for firms in order to make optimal investment and financing decisions. Do financial literacy skills enhance firm performance in small and medium-sized enterprises (SMEs)? This article discusses the association between financial literacy and firm performance of SMEs. Financial literacy research so far has been conducted at the individual level of analysis. There is a research gap looking at financial literacy at the firm level and this study sets out to address this gap with an Australian SMEs. By increasing the level of financial literacy, firms are prepared to face unexpected and irregular financial circumstances. Financial literacy leads to an accumulation of wealth that enables firms to respond to new market opportunities and thus, improve their firm's performance. The research endeavors to develop a framework that will help SMEs identify the importance of financial literacy and the advantages that can be utilized to spur entrepreneurial activity and sustain their firm's performance. In addition, this study develops a new valid and reliable instrument for measuring financial literacy that can be used by different stakeholders for future research and development. Preliminary findings indicate that financial knowledge and financial awareness are positively related to firm performance. Contrary to expectations, the financial attitude is inversely related to firm performance.

Keywords: Financial literacy, Firm Performance, Small and Medium Enterprises, Australia

- **Paper title:** The Dynamics of Risk Premiums in Australian Electricity Markets

Author: Rangga Handika, Macquarie University, Australia
rangga.handika@students.mq.edu.au

Co-author: Stefan Trueck

Abstract: This paper investigates the dynamics of futures risk premiums in four regional Australian electricity markets (NSW, QLD, SA and VIC). We analyse realized risk premiums for quarterly futures contracts for different time intervals during the twelve months prior to the beginning of the delivery period of the contract. Using data from 2005 to 2012, we find that futures premiums exhibit dynamics through time and tend to become more statistically significant as the contracts get closer to the beginning of the delivery period. The magnitude and significance of the premiums, however, varies across different regions, and also depends significantly on the contract quarter, i.e. whether the contract refers to the first, second, third or fourth quarter of the year. In a second step, we investigate the determinants of realized futures premiums and propose a model to effectively capture the dynamics of the premiums. We argue that time to maturity of futures contracts, spot price levels, volatility and variance of daily spot prices as well as the recent number of price spikes in the market make a contribution to explaining the dynamics of observed premiums. For several of the markets and quarters our model provides a reasonably high explanatory power. Overall, we find that futures premiums tend to be higher when contracts approach the beginning of the delivery period. Premiums also have a tendency to increase with raising spot price levels and with the frequency of price spikes being observed in the spot market. Overall, our results illustrate the risk aversion of market participants and help to better understand the hedging behaviour and dynamics of risk premiums in Australian electricity markets.

Keywords: Australian Electricity Markets, Futures Contracts, Risk Premiums

- **Paper title:** The effect of compliance to mandatory disclosure on the extent of voluntary disclosure: The case of Jordan

Author: Dr. Bilal Fayiz Omar, *University of Petra, Jordan*
drbilalfayz@yahoo.com

Co-author: Nidal Zalloum

Abstract: This paper shed the light on the effect of compliance to mandatory disclosure requirements on the extent of voluntary disclosure for Jordanian companies listed in Amman Stock Exchange (ASE) for the period 2008-2012. The mandatory disclosure is measured by constructing an index covering all mandatory items. The Securities Law for the year 2002 determines two sources for mandatory items: Directives of Disclosure and Auditing and Accounting Standards (DDAAS) and International Financial reporting Standards (IFRSs). For voluntary items, a review of disclosure literature and a pilot study will be conducted in order to indicate the voluntary items for Jordanian companies. Such study will have a significant implication for regulators, that the flow of information in the capital market should consider the interaction among all different channels of information (i.e. mandatory and voluntary disclosures). In addition, the policy makers will have adequate knowledge to design the disclosure regulations in light of their influence on the level of disclosure for other sources of information (i.e. voluntary disclosure). Exploring such an interaction will provide an implication for researchers that mandatory and voluntary disclosures are not separated elements and researchers should take into consideration the relationship between them.

Keywords: Mandatory Disclosure, Voluntary Disclosure, Amman Stock Exchange, International Financial Reporting Standards (IFRSs)

- **Paper title:** SME lending relationships: A learning perspective

Author: Ms. Valentin, Anke, *Edinburgh Napier University, Germany*
anke.valentin@w.thm.de

Co-author: Thomas Henschel

Abstract: SMES often have to face restricted access to bank finance. These restrictions can be mitigated by the provision of a guarantee from a Credit Guarantee Scheme. By analyzing the results of the overall ten semi-structured interviews with German bank managers, the present study found evidence for the ability of guarantee banks to overcome existing credit restrictions of SMEs with viable business projects but a lack of own collateral. Moreover, the results have demonstrated that the provision of a guarantee fosters the creation of lending relationships and allows a diminution of information asymmetries. The research therefore expands existing conceptual literature by providing empirical results. Moreover, the research has revealed some new aspects like the importance of cross-selling and the support of the region for requiring guarantees that make available bank loans to SMEs.

Keywords: SME, Lending Relationship, Guarantee Banks, Learning, Credit Restrictions

- **Paper title:** Leadership and Organisational Performance: An investigating of SMEs in Malaysia

Author: Ahmad Fadhly Arham, *RMIT University, Australia*
ahmad.arham@rmit.edu.au

Co-authors: Nuttawuth Muenjohn and Carlene Boucher

***Abstract*:** The determinants of performance of SMEs have long been a focus of debate. A review of literature suggests that there is still a lack understanding of how these organisations are best managed and led. In Malaysia, this is an important matter. SMEs are critical to the growth and development of the Malaysian economy and so the ways they are led is of interest to a range of stakeholders, including the government. This study not only looked at the leadership of SME's but also investigated the link between leadership and entrepreneurial outcomes in small businesses. Based on quantitative and qualitative data, this study found that leaders of SMEs in Malaysia tend to demonstrate behaviours that associate with transformational and transactional leadership. Empirically, transformational leadership was found to have significant relationships with growth and profitability. These relationships were stronger than those found with transactional leadership. Interview data also showed strong support for the idea that the practice of transformational leadership was more useful than was transactional leadership. The originality of this paper lies in it being the first to examine the leadership behaviours of Malaysian SMEs from a quantitative and qualitative perspective.

Keywords**:** Transformational and Transactional Leadership, Organisational Performance, Mixed Method Study, SMEs, Malaysia

- **Paper title:** Access and use of ICTs in female-owned SMEs in Arab Countries, and Brazil: A comparative study

Author: Dr. Mona Farid Badran, *Cairo University*, *Egypt*
samifarah.mona@gmail.com

Abstract: Empowering women in Egypt is considered a vital issue for social and economic development. It is an established fact that one of the UN Millennium Development Goals is gender equality and women empowerment. It has been widely recognized that ICT can be the vehicle to achieve this goal. Thus, policy makers are progressively investigating and developing new ways of empowering women, by promoting economic activity and growth among women in developing countries. Furthermore, the increased uptake of access ICTs such as access and use of the Internet and Broadband, having a website for the small businesses, using emails, etc. (ICA survey 2008), are contributing to overall growth and increased productivity level of female-owned enterprises. This is quite important and relevant to empowering females in general and especially female-owned entrepreneurs, as those SMEs that adopt these new ways of doing business, enjoy a competitive edge compared to the rest of the SMEs, that don't incorporate ICT in their production technique. Starting in the 1990s, many SMEs in developing countries, although a small number, include modern information and communication technology in their enterprises. This trend can result in an increase in the returns for enterprises. This study suggests a comparative empirical study about the impact that ICT plays on empowering women entrepreneurs in Arab countries and compare it with the case of Brazil. The majority of the empirical literature on entrepreneurship discusses solely the hurdles that male entrepreneurs might be confronting when establishing SMEs. Furthermore those studies that have investigated the gender dimensions and explored the topic of women entrepreneurs have concentrated on developed countries Other innovative contributions in this study are the use of the Investment Climate Assessment Survey to construct the ICT index for SMEs. Here this index which will be constructed using the Principle component Analysis Technique (PCA) will reflect the various ways women entrepreneurs access and use the Internet and other ICT services to succeed in their enterprises and increase their productivity as well as increase their profits.

Keywords: SMEs, ICT, Females

- **Paper title:** The Performance Measurements in the UK Biotechnology Companies

Author: Dr Yun Dai, *Xi'an Jiaotong Liverpool University, Jiangsu Province, China*
Yun.Dai@xjtlu.edu.cn

Co-author: Morrison Handley-Schachler

Abstract: This paper aims to investigate how the UK biotechnology companies assess their performance and to recommend a range of suitable performance measurements for these companies. The selection of the performance measures are affected by various factors such as business sector, company strategy, competition intensity and stakeholders' power. Biotechnology is an industry with high technology and capital intensity. This industry has significant contribution to the UK's economy and employment. However, there is a lack of study on the performance measurement within this industry. This paper tries to fill in the gap. Questionnaire and interview are used in this study. The results show that the UK biotechnology companies use a wide range of performance measurements but they focus on about 10 indicators. Based on the criteria of suitability, feasibility and acceptability, profit margin or profit, new contracts secured, cash reserve, funding of R & D, met goal, profitability of new products, customer perceived quality, number of new customers, brand loyalty and market share are recommended as key performance measurements for the UK biotechnology companies.

Keywords: Performance Measurement, Financial and Non-Financial Indicators, Biotechnology Industry

- **Paper title:** Privitization of State-Owned Enterprises (SOEs) in Libya: An Evaluation of the Politics, Procedures and Experience

Author: Nassr Saleh Mohamad Ahmad, *Libyan Academy, Libya*
nassr_ahmad@hotmail.com

Co-author: Mustafa S. A. Treki, *Al-Zawia University, Libya*
m_treki@yahoo.com

Abstract: This study seeks to review the privatisation program of SOEs in Libya, highlighting the major tools and mechanisms employed, and the achievements and constraints faced by the authorities in privatizing of Libyan Arab Airlines (LAA). A research conceptual framework has been developed to investigate the specific aspects of the privatisation process in the air transport industry in Libya. The conceptual framework was developed based on Ramamurti (2000)'s multi level of privatisation. Moreover, the research followed a case study method with a single unit of enquiry that has in turn several sub-units of enquiry. The unit of enquiry is the privatisation process in the air transport industry in Libya, while the sub-units are the elements of the air transport industry that were privatised.

Keywords: Privatisation, State-Owned Enterprises, Libya, Libyan Arab Airlines (LAA), Conceptual Framework, Case Study, Firm-level, industry-level and country-level.

- **Paper title:** Literature Review on Factors Influencing Accessing Bank Loan Issues of Small and Medium Enterprises (SMEs) in Libya

Author: Dr. Nassr Saleh Mohamad Ahmad, *Libyan Academy Business School, Libya*
nassr.ahmed@hotmail.com

Co-author: Mr. Ramadan Ahmed A Atniesha, *University of Warsaw, Poland*
finanse@ambasadalibii.pl

Abstract: This paper seeks to introduce, summarise, and reflect on the key themes and findings raised by the six papers selected for this literature review devoted to Factors Influencing Accessing Bank Loan Issues of Small and Medium Enterprises (SMEs) in Libya. Design/methodology/approach: The conclusions are drawn from desk research generally and the articles contained in this collection. Findings: By reviewing the available literature on access to finance by SMEs in Libya, the study found that previous studies appear largely united in their results. They reveal that some of internal, institutional and external factors have a significant effect on access to finance by Libyan SMEs. The paper also noted that a number of other factors identified by the literature, have not studied in Libyan context and could be a topic of further researches. Finally, in terms of research methodology, two approaches were adopted in these previous studies namely: (1) one-dimensional analysis (Demand-side study); and (2) two-dimensional analysis (Demand and Supply-side). Research limitations/implications: The main limitation of the literature review, as a study methodology, is that it relies on information which has already been researched (secondary information), and if there is none, then specific questions on the new study might not be adequately answered. Secondly, owing to different objectives and methodologies (and study designs) of previous studies, the data might not be in the right format or specific enough to answer the current study. Because of these limitations, a literature review is always conducted in preparation for primary and more detailed research. Originality/value: This is the first review of this area and thus should help intending and existing scholars. It presents a collection of mainly empirical papers on an important but neglected topic, namely Small and Medium Enterprises might aid economic development in Libya.

Keywords: Small and Medium Enterprises (SMEs); Accessing Bank Loan Issues; Libya

- **Paper title:** Ration Card in Egypt: Targeting, Leakage and Cost

Author: Dr. Hebatallah Ghoneim, *German University in Cairo*
hebatallah.ghoneim@guc.edu.eg

Abstract: Subsidy restructure is at the forefront of Egyptian public policy reform, after series of economic deterioration that has ended with nearly a quarter of the population living in poverty. The government has adopted a number of procedures in order to decrease subsidy cost and inefficiency. One of the major accomplished procedures is introducing smart ration card. This paper is a policy research that illustrates the evolvement that took place for ration card subsidy and evaluates its current performance. The researcher tries to archive the ration card situation in Egypt, then carried a number of interviews to portray current situation and finally held a questionnaire to assess its targeting effect, leakage situation and cost effectiveness.

Keyword: Egypt; Food Subsidy; Ration Card; Social Safety Net

- **Paper title:** Smart Grid Policy and Law in Jordan

Author: Dr. Mohammad Mahasneh, Tafila Technical University, Jordan
m_mahasneh2006@yahoo.com

Co-author: Qais Alsafasfeh

Abstract: Creation of a Smart Grid provides utilities and their customers a significant improvement in power reliability and services, to date, Smart Grid in Jordan still in infant stage. In this paper we will present the Smart grid policy and law in Jordan by studying Tafila smart grid as a case study. One can see variety of problems and challenges in the field of Smart Grid. Hence, this paper can provide a help to find a new research point in this field. Also in this paper we try to recommend develop implementation strategy that will help to generate appropriate smart grid & Energy Efficiency Law

Keywords: Smart Grid, Renewable Energy, Legislative, Regulatory

- **Paper title:** Entrepreneurship and Small Business in 5 main points: My perspective

Author: Dr. Ghada Gomaa A. Mohamed, *ECO-ENA, Inc., Canada*
gmohamed@eco-ena.ca

Abstract: This article theorizes the difference between the concept of the entrepreneurship and the concept of the small business in a macro-economic mathematical framework that can show the impact of each of them on the social welfare.

Keywords: Entrepreneurship, Small Business, Social Welfare

- **Paper title:** Poverty Reduction and Impact Analysis: Macro-analysis

Author: Dr. Ghada Gomaa A. Mohamed, *ECO-ENA, Inc., Canada*
gmohamed@eco-ena.ca

Abstract: This paper addresses the concept of the poverty reduction and it presents a macro-time series analysis approach in order to measure the impact of poverty reduction proposed policies on the transitional dynamism of the economy. The paper applies its theoretical implication on the Egyptian economy and hence it evaluates the sustainable development strategies adopted by different gocvernments under Mubarak's former regime with an emphasis on poverty reductions policies

Keywords: Poverty Reduction, Sustainable Development, Economic Growth, Egypt, Mubarak's Regime, Policy Analysis, Impact Analysis, Time Series Analysis, Intervention Analysis, Dynamism.

The Fourth Annual Conference of Economic Forum of Entrepreneurship & International Business (FACEFEIB)

Selected Papers

ISBN: 978-0-9869581-2-0 On-line: Library & Archive Canada

Authors of those papers/ articles accepted to include them in the conference proceedings.

The Annual Conference of Economic Forum of Entrepreneurship & International Business ISSN: 1925-461X
The 4th Annual Conference of Economic Forum of Entrepreneurship & International Business ISBN: 978-0-9869581-2-0

PRIVATISATION OF STATE-OWNED ENTERPRISES (SOEs) IN LIBYA: AN EVALUATION OF THE POLICIES, PROCEDURES AND EXPERIENCE

Assoc Prof. Dr. Nassr Saleh Mohamad Ahmad
Business School, Libyan Academy, Tripoli- Libya; Middle East Knowledge Economy Institute (MEKEI), Brighton Business School, Brighton University, UK, and World Association for Sustainable Development (WASD), Sussex University, UK
Email: nassr_ahmad@hotmail.com

Mr. Mustafa S. A. Treki
Lecturer in Management, Management Department, Economic Faculty, Al-Zawia University, Al-Zawia- Libya
Email: m_treki@yahoo.com

Abstract:

Preface: Privatisation of SOEs has emerged to be one of the key issues that have dominated governments' economic planning for many developing countries. The success of such policy depends on the specific situation of the state of the economy, politics and the sector that is involved in the process.

Purpose: This study seeks to review the privatisation program of SOEs in Libya, highlighting the major tools and mechanisms employed, and the achievements and constraints faced by the authorities in privatizing of Libyan Arab Airlines (LAA).

Design/Methodology/approach: A research conceptual framework has been developed to investigate the specific aspects of the privatisation process in the air transport industry in Libya. The conceptual framework was developed based on Ramamurti (2000)'s multi level of privatisation. Moreover, the research followed a case study method with a single unit of enquiry that has in turn several sub-units of enquiry. The unit of enquiry is the privatisation process in the air transport industry in Libya, while the sub-units are the elements of the air transport industry that were privatised.

Findings: The changes caused by the privatisation process were slow in LAA with reference to the elements of reform. In addition, the common factor in the analysis is the government interference in the privatisation process in LAA, where the government exercises greater control over management because it remains the majority shareholder, which gives it the upper hand.

Limitation: While the Ramamurti (2000)'s model is characterized by flexibility and multi-level viewpoints (Firm-level, industry-level and country-level), this study limits itself with firm-level only. The other levels could be an area for further research.

Value: The research contributed to the body of knowledge perspective in different ways. Primary, it is the further investigation and analysis that carried out at firm level by exploring the impact of privatisation on certain elements, which were considered in our analysis of the research conceptual framework. Furthermore, our findings shall contribute into the existing theory in the areas of privatisation process at firm-level by providing insights into the process in the specific situation of air transport industry in Libya; a developing country in transition.

Key words: Privatisation, State-Owned Enterprises, Libya, Libyan Arab Airlines (LAA), Conceptual Framework, Case Study, Firm-level, industry-level and country-level.

Paper type: Case Study.

1.0 Background and Introduction

The debate over an appropriate definition of privatisation has been going on for more than 30 years. Morris (1999) indicates that, both practitioners and scholars disagree on one specific definition, at the same time, the term privatization applies to a great variety of arguments. For example, Robinson and White (1997) explain that, state ownership may be superseded by public-private partnerships, which come in various forms. The private sector's role may be no more than providing capital for the projects, which are devised and operated by government bodies; or the private sector may manage the assets as well as provide finance; or it may build, own and operate some assets for a period before they revert to government ownership. Moreover, the creations of federal corporations, quasi government-sponsored enterprises are often filed, under the general category of privatization.

Generally speaking, privatisation is the process of the withdrawal of the state from the production of goods and services or transfer of ownership from the public sector to the private sector. Therefore, for the purpose of this research, privatization is defined as the process of transferring from government-controlled enterprises to privately run, for-profit enterprises.

Parker (2004) summarises two of the main economic theories that provide a strong rationale for privatisation as follows: principal-agent theory and its implications for effective corporate governance suggest that in privately-owned enterprises management faces superior incentives to drive out waste and maximise productivity. While public choice theory maintains that within government, as elsewhere in the economy, self-interest is the dominant motive, with the result that state ownership is associated with empire building, gold plating of public investments, over-manning and, in general, economic waste. Together, principal-agent theory and public choice theory provide a powerful theoretical rationale for privatisation.

In many countries, particularly in developing countries, it has been a widespread practice that many industries are owned and controlled by state governments. However, in the recent years, many countries pursued economic reform policies. One of the most significant policies has been privatisation. Zahra et al. (2000) indicate that privatisation is a frequently used strategic option in today's rapidly globalization economy.

Almost all countries who pursed privatisation, their ultimate goal was not merely to engineer a change in ownership, but also to increase efficiency, flexibility and competitiveness of enterprises, that is, to create organizations that use their assets efficiently and which are capable of competing effectively in an open market economy. Hence, privatisation as a policy can be an important instrument to achieve competitiveness and to reduce political interference.

Although, there is theoretical and empirical evidences on the privatisation process at country level, little attention given to the privatisation process at firm level. De Castro and Uhlenbruck (1997) argue that research on privatisation from a firm- level perspective is clearly lacking a theoretical and an empirical basis. This research shows how the privatisation process is carried out and how the privatisation process phenomenon is observed at firm level. The research will contribute empirical evidence to the studies of privatisation in developing countries.

Moreover, the privatisation process also takes a lot of time, this study will provide new insights in the functioning of enterprises in transaction and it provides evidence on the consequences of the process in developing countries. Libya is a good example, as it is a developing country. It was under socialist system regime for more than thirty years, with its long tradition of government control and all its industries were owned and managed by the central government, including the air transport industry. Libya's readmission to the global mainstream after the UN economic sanctions and the US air embargo were lifted, also creates a special position for the country in the region to study. In addition, the air transport industry, in particular, is important and complex industry. It makes a substantial contribution in general to the prosperity of nations and stimulates economic and social progress (Bell, 1995; Beyer et al, 1999; Kikeri et al., 2005; Megginson et al., 2004; Ramady, 2006). Privatisation of such industry is a unique process to research especially in the context of developing economies. The reasons of studying such industry are rooted in the certain characteristics of the air transport industry. Among these are the huge investment that the industry needs and the sovereignty principle for the country.

Moreover, Raguraman (1997) argues that apart from its role in economic development, air transport, more than other means of transportation, plays an important symbolic role in national identity and nation building. Historically, people have identified with their airlines as a symbol that represents their 'nation'; a symbol of national pride, especially in developing countries. An airline is viewed as a 'flag-carrier' which helps to promote a national consciousness, serving to socially integrate many different communities into a cohesive region and creating an awareness of their national identity. The International Chamber of Commerce (ICC) also points out that the air transport industry in many countries is still considered a public utility, and, as such, should be run by the government (ICC, 1995).

It is hard to imagine with these kinds of principles and features of the industry in mind, that it would be a simple matter for governments to let go of its control. Therefore, the research is conducted on how the privatisation process and its institutional framework have been set up and carried out in Libya by using the unique features of the air transport industry as a framework case to investigate.

This study is organised as follows. Section two dials with privatisation in North Africa and the Middle-East Regions. Conceptual Framework and Research methodology are discussed in section three. Section four analyses and discusses the findings. The final section concludes the papers.

2.0 Privatisation in North Africa and the Middle-East Regions

In North Africa and the Middle-East regions, privatisation proceeds have been modest, but also growing in recent years, largely because of Morocco's telecom sale as well as the sale of *Regie de Tabac* (tobacco manufacturing) and the privatisation of Cement manufactures and other medium to large sized companies in Egypt. Kiekeri and Kolo (2005) indicate that, in 2000, Morocco became the first in the region to sell minority shares in telecommunications, followed by Jordan later in the year and Saudi Arabia in 2003. Little (2011) indicated that the Middle East and North Africa (MENA) accounted for only 7% of the total value of privatisation transactions in developing countries in the period (2000-2008). Moreover, it stated that two countries, namely Egypt and Morocco, account for more than 60 % of the total value and number of privatization transactions in this period. In the other words, privatisation so far has almost been non-existent in most of the Middle East and North Africa regions (for example, in Libya it is only, 1%), and most of it has taken place outside "strategic" sectors such as energy and financials. These figures were confirmed by Beh and Alameer (2012), who found that privatisation of SOEs in the Middle East and has been slow relative to other regions, especially Latin America, East Asia and South-east Asia.

Taking into consideration the case of Libya, three waves of privatisation have taken place in Libya since the mid-1980s (Aboujdiryha, 2011; Kamaruddin and Abokaresh, 2012). Initially, as a response to the drop in the oil market in the mid-1980s, the Libyan government adopted its first economic reform program. It introduced the concept of *Tashrukiyya*, collective ownership that allowed for the creation of cooperatives to which some partners contribute labour and capital

(Vandewalle, 1998). The *Tashrukiyya* system allowed limited private investments in Libya for the first time since 1977. The aim was to encourage the private sector to participate in the service and light industries as a means of overcoming their inefficiency (Altunisik, 1996).

The second wave of privatisation which began in 1992 was still in response to the drop in the oil market prices in early 1990s and the poor financial performance of many public sector firms in terms of low productivity. The government proceeded with another economic reform program. However this time, the government introduced the concept of *Sharika Musahima*, joint-stock company. It was an effort to surpass the previous privatisation experience and share the state burden with the private sector (Vandewalle, 1998). The program aimed to liberalise the wholesale trade and attract foreign investments in response to the international sanctions related to the Pan Am bombing over Lockerbie, Scotland, in 1988 (Otman and Karlberg, 2007).

In 2003, the Libyan government announced a large-scale privatisation program which introduced the third privatisation wave, A*l Tamleek*. It was described as a program of broadening the ownership base through encouraging residents to own the public firms to avoid concentrated ownership (Alfourjani, 2005). The program aimed to restructure the Libyan economy towards building popular capitalism through spreading share ownership more widely (Alsouia, 2005). It also aimed to transfer the role of the state from the owner to encourager of the economic activities (Shernna and Alfourjani, 2007). The program also aimed to make the country eligible for World Trade Organisation (WTO) membership (Aboujdiryha, 2011; Kamaruddin and Abokaresh, 2012).

However, Kamaruddin and Abokaresh (2012) found that the average efficiency score before privatisation was 49.5 percent, but the score improved to 62.3 percent after privatisation. The increase of 12.8 percent indicates that on average there is only minor improvement in technical efficiency of firms after privatisation. Nevertheless, this increase was not statistically significant. Their results also indicated that even though there was an increase in technical efficiency scores of state (government) control and private owned firms, again this was not statistically significant. The results suggest that firms in Libya are not prepared for the true sense of privatisation, resulting in almost all firms facing difficulties in optimizing their own resources economically.

The Privatisation Investment Board (PIB) (2013) outlined the barriers that may limit the growth of private sector in Libya as following:

- Lack of proper infrastructure.
- Lack of managerial efficiency.
- Excessive and unfair tax charges and customs fees.
- Lack of transparency and freedom of information exchange.

- The lack of protection of local products.
- Lack of visibility study for the privatised firms.
- Lack of legal framework for evaluation of privatised firms prior to its privatisation led to price discrimination.
- The ideal number of employees was never taken into consideration, nor were their experience and qualifications considered.
- The firms' operation and efficiency fell below standards due to lack of availability of the required equipment and spare parts.
- The lack of internal bye-laws to ensure partnership compliance.
- The new owners of these firms did not maintain full insurance on their privatised assets.

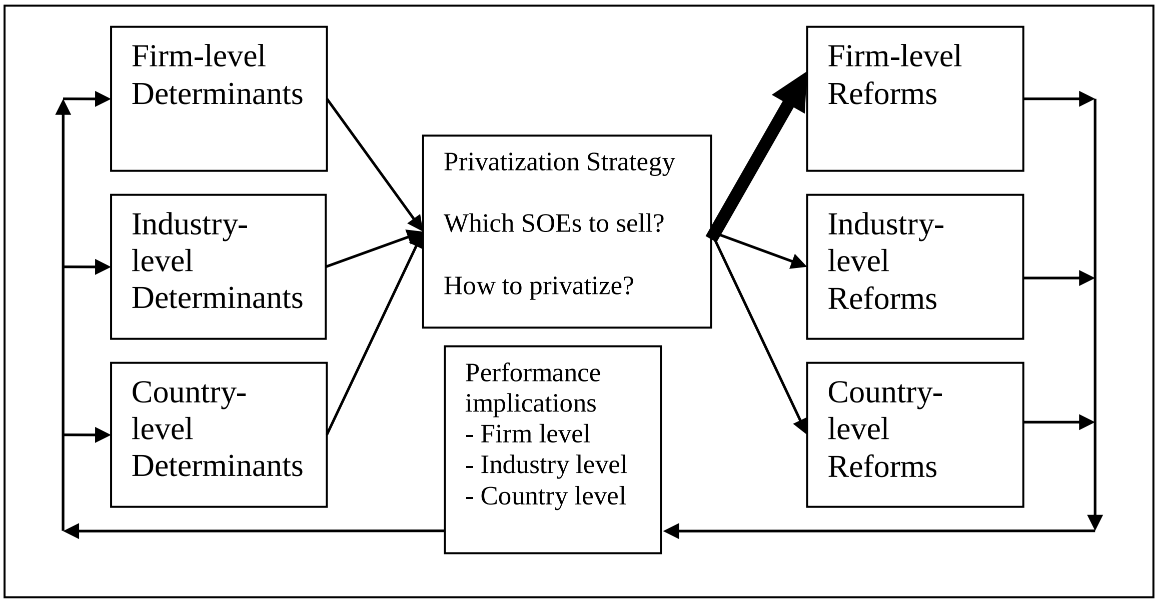
However, to gain more insight into the privatisation processes in the context of Libya this study seeks to review the privatisation program of SOEs in Libya, highlighting the major tools and mechanisms employed, and the achievements and constraints faced by the authorities in privatising of Libyan Arab Airlines (LAA).

3. 0 Conceptual Framework and Research Methodology

In order to achieve the objective of this study, a research conceptual framework has been developed to investigate the specific aspects of the privatisation process in the air transport industry in Libya. The research conceptual framework has been put forward by drawing on the theories and on the privatization methods and techniques that have been identified and discussed in the literature. In addition, the conceptual framework in essence was developed based on Ramamurti's multi level of privatisation. According to Ramamurti (2000), the main change introduced by privatisation, at firm level, is in the governance arrangements, but the nature of the new governance mechanism depends on how the SOE is privatised, and also depends on the government residual ownership after privatization. Ramamurti's model is characterized by flexibility and multi-level viewpoints. It is flexible because of its dynamic nature to represent a privatization process that changes over time and not static to show only a snapshot in time. It is a sequential process model.

The model can also present multi-level perspective of privatisation process and its impact on three levels, namely: the firm, the industry, and the country. Since the focus is the privatization process on one company, the model fits the goal of this research to use multi-level features with the intent of applying the firm-level reforms only. Our research conceptual framework was based on Ramamurti's Multi-level Privatization Model, figure (1), by using the firm-level reforms feature.

Figure (1) Multilevel Model of Privatisation

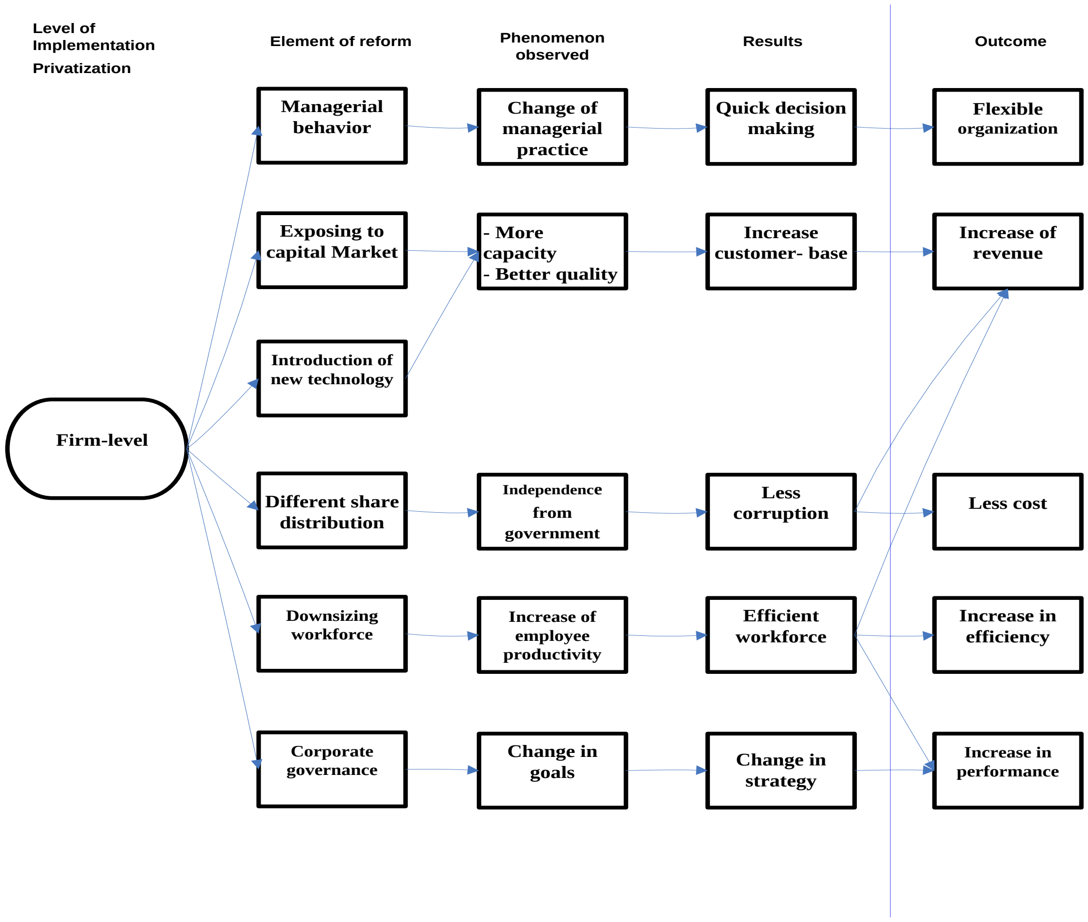


Source: Ramamurti (2000).

The feature of firm-level reforms is expanded into several components as shown in figure (2) to create the research conceptual framework for the privatization process of the air transport industry. Ramamurti's model main concern was on the government's arrangements with respect to the ownership structure and its dependency on the government's residual ownership. However, the researchers took an additional step to investigate other elements that might be affected at firm level as described further in the research conceptual framework (figure2).

The research conceptual framework is used to focus the collection of data and to structure its analysis. It is employed to explore and explain, at firm-level, how the privatisation process is carried out by investigating the key elements of reform followed by the experience that took place during the process and how these elements have been influenced by the privatisation process. Thus, it focuses specifically on the sequence of events, such as managerial behavior; what may change in the managerial behaviour that can be observed, and what are the consequence that become visible. The conceptual framework also treats the rest of the elements (capital market, introduction to new technology, the different share distribution, downsizing workforce, and corporate governance) the same way. These elements were developed based on the literature survey on privatisation.

Figure (2) the Research Conceptual Framework



The research conceptual framework is used to focus the collection of data and to structure its analysis. It is employed to explore and explain, at firm-level, how the privatisation process is carried out by investigating the key elements of reform followed by the experience that took place during the process and how these elements have been influenced by the privatisation process. Thus, it focuses specifically on the sequence of events, such as managerial behavior; what may change in the managerial behaviour that can be observed, and what are the consequence that become visible. The conceptual framework also treats the rest of the elements (capital market, introduction to new technology, the different share distribution, downsizing workforce, and corporate governance) the same way. These elements were developed based on the literature survey on privatisation.

The components of this conceptual framework consist of Elements of Reform, Phenomenon Observed, Results, and Outcome (Impact). The Elements of Reform, which are described below, include Managerial Behavior, Exposure to Capital Market, and Introduction to New Technology, Share Distribution, Downsizing, and Corporate Governance. Phenomenon Observed consists of Change of Managerial Practice, More Capacity and Better Quality, Independence from

Government, Increase in Employee Activity, and Change in Goals. Results are Quick Decision Making, Less Corruption, Efficient Workforce, and Change in Strategy.

Moreover, the literature on privatisation studies suggests that the case study method is a rich source of descriptive data and addresses both qualitative and quantitative effects (Parker and Kirkpatrick, 2007). As well, Ghauri and Gronhaug (2005) argue that case studies are used for their suitability of building descriptive and explanatory knowledge from a field and it is a preferred approach for answering when, how and what questions are asked. First, this method allows the researcher to investigate a contemporary phenomenon within its real life context, as the boundaries between the two were not clearly defined (Yin, 2003). The method can generate deep and rich information about an actual situation, which is important to build comprehensive descriptive knowledge that will enhance the insights into the phenomenon investigated. In this respect, the case study method enabled us to gain access to various data sources, and to process an extensive variety of material, such as documents, records from interviews, and observations. The method also allowed a systematic observation of the policies, people, structures and context of an organization (Birnberg et al, 1990). Second, case study research is a suitable method for gaining insight into less-known areas into which little research has been conducted. Therefore this approach enabled us to examine how the process of privatisation is carried out, by examining the key elements of reform at firm level. This way, widespread qualitative information can be gathered, facilitating a more in-depth analysis and understanding of the phenomena dealt with in this research. Third, case studies allow investigation of various controls including those that are to measure by means of surveys (Langfield-Smith, 1997).

Thus, this research followed a case study method with a single unit of enquiry that has in turn several sub-units of enquiry. The unit of enquiry is the privatisation process in the air transport industry in Libya, while the sub-units are the elements of the air transport industry that were privatised. With these circumstances and the situation of the recent privatization process that has been embarked in the air transport industry in Libya, in which one of the national carriers, Libyan Arab Airlines (LAA) was the only element in the air transport industry to be appointed for privatisation at the time of conducting this study.

Primary data such as observations and structured interviews with top and middle managers on how and what has happened during the privatisation process. This is carried out through systematic interviews during the fieldwork; the researchers have an opportunity for direct contact with top and middle managers. In depth face-to-face interview sessions were conducted, which allowed the researchers to obtain specific answers and to achieve rich descriptions of the privatisation process. This was supported by the observation of attitude of personnel, and the overall behavior of the firm under investigation. Furthermore, secondary data such as annual reports of the company under study and policy documents also have been collected and reviewed for answering certain questions. The use of multiple data collection methods (the primary and secondary sources of data), and the analysis techniques provided the researcher with the opportunity to triangulate data in order to strength the research findings and conclusions.

4.0 The Findings (Cross-Case Analysis)

4.1 History of the Company (Libyan Arab Airlines)

In 1964, a national carrier was established under the name of Kingdom of Libya Airlines, and it commenced operations towards the end of 1965. In the early 1970s, it operated as Libyan Arab Airlines organization (LAA). LAA's main activities concerned air transport passengers and cargo, airport handling and aircraft maintenance, and airlines catering services. It has had scheduled services to different destinations in Africa, Europe and the Middle East. LAA has been a member of the International Air Transport Association (IATA) and the Arab Air Carriers Organization (AACO). Since the early years of the company's operations, it had full support and considerable sponsorship from the Libyan government. Fast development and wide success were accomplished in the 1970s, which is now considered the 'golden era' for LAA. Libyan Arab Airlines received awards from many international events, and has obtained certificates of good performance from different countries.

After several years of the establishment of LAA, the company prepared to expand its activities to include transatlantic operations by means of acquiring jumbo jets aircraft (Boeing 747s) as well as other extensive routes to include North American destinations in the early 1980 (Luheshi, 2006). However, due to the US embargo of 1980, Boeing, the American aircraft manufacturer, refused to grant an export licence for three Boeing 747-200s. Still, the carrier operated a mixed fleet of 42 aircrafts including Airbuses, Boeings, Fokkers, and Twin Otters.

Other negative effects were inflicted upon LAA's operations following the US and the UN sanctions in 1992. As a result, all international operations ceased in early 1992, and managed to sustain a domestic service with few airworthy aircrafts. Moreover, the fleet of operational aircrafts has changed, as most of the aircrafts were grounded due to the lack of the appropriate maintenance programs and the airworthiness. Grounding the fleet for international services had a significant impact on aircrafts and crews. The fleet was not fully maintained or updated but kept for the minimum safety requirement. Some of the aircrafts had been used to provide spares to other aircrafts, and Crew-operating licences were minimally validated due to a lack of flying hours. Many Pilots and maintenance Engineers had to seek employment in airlines outside the country.

After the ending of the UN sanctions in April 1999 that were imposed on Libya, LAA resumed its international services with only a small number of its own aircrafts and leasing aircrafts from others. In addition, only a small percentage of the flight crew potential was being used. Luheshi (2003) points out that new international air transport standards prevented some of its aging aircrafts from flying to Europe without noise reduction modifications and their avionics system upgrading. It appears that it has been difficult for LAA to overcome these limitations. The sanctions have caused serious impacts to LAA on the technical level and on the qualifications of the human resources, especially engineers and pilots. Moreover, LAA was a solo operator in the domestic market until some privately owned airlines started competing in the domestic routes. The most competitive one was Buraq Air, which commenced operations in 2001, and took a large market share from LAA.

In a move by the Libyan government to reform its entire air transport industry, Libyan Arab Airlines was selected as the first state-owned enterprise targeted for privatisation in its economic reform policy.

4.2 Privatisation Policies and LAA

This section discusses how the Libyan government planned privatization in general. The government has embarked on a wide range of structural reforms aimed at moving towards a market economy. It has declared its intention to reshape the economy and in particular the air transport industry. Reforms in the economy have been carried out through large government investments, reducing subsidies, and privatization to bring the country back to the international standards after the years of isolation that resulted from the international sanctions. Therefore, the government has prepared plans for coherent economic policies, to improve the countries' economic development into the future.

The Libyan government recognised the failure of the early attempts of the privatisation programs of 1980s. The deficiency of the privatisation programs was due to the absence of an independent privatisation board or a ministerial commission. To eliminate this deficiency and to avoid this obstacle, the Libyan government issued resolution Number 198/2000, concerning the establishment of the General Board of Ownership Transfer (GBOT), as an autonomous and financially independent state body similar to other Ministries under the direction and supervision of the Libyan government. The responsibility of the GBOT is executing the plans and programs of transferring the ownership of state owned enterprises (SOEs) to the private sector. After the establishment of the GBOT, the government announced plans to implement a more competitive privatization program. For example, a World Bank report (2006) points out that the government passed a privatisation decree (No 313/2002), a strong commitment to embark on full privatization of 360 SOEs from all competitive sectors. Moreover, execution of such programs was empowered (in the summer of 2003) by the introduction of Resolution Number 31/2003 with its articles and regulations. Waniss and Kaelberg (2007) point out that resolution 31/2003 was a significant piece of legislation, which signaled that the Libyan government was preparing to embark on a major privatisation programme. Resolution Number 198/2000 and Resolution Number 31/2003 were considered as the key legislations, which placed the Libyan privatization process on a sound, legal, and administrative footing.

The privatisation plans which were announced in 2003 included some elements of the air transport industry in the country such as the national carrier, Libyan Arab Airlines (LAA), as well as some of the airports in the country. Libyan Arab Airlines was the first company to be put up for privatisation. Two years after the country embarked on the economic reform program and as part of this initiative, the implementation of the privatization program began for LAA. Because of the privatisation announcement, some international companies specialised in airport operations management offered their services on a BOT basis to the Libya Civil Aviation Authority (LCAA). These companies provided studies and analysis of the air transport industry in Libya but the government did not seriously consider pursuing these opportunities any further. Some of the reasons are the sovereignty of the country and the sudden rise of oil prices and associated revenues. The country was not ready for relinquishing control of its airports to a foreign entity. The high oil revenues prompted new plans to build new airports, which delayed consideration of privatisation of airports.

4.3 Privatisation Process Implementation (the break-up of LAA)

The previous General People Committee, (the Libyan Cabinet) issued Law No. 54, in 2005, to form a high level privatisation committee from all state sectors and led by the Minister of Finance, representative from the GBOT (Privatisation and Investment Board (PIB later, and currently, PIB), and members from the Libyan Civil Aviation Authority. This committee had the responsibility to evaluate all the assets of LAA, financial data, and properties belonging to the company inside and outside of Libya.

In the same year, 2005, the Libyan government introduced the following resolutions: 11/2005, 12/2005, and resolution number 13/2005, which grant the establishment of the new three privatised companies, Libyan Air Services Catering Company (LASC), Libyan Handling and Aircraft Maintenance Company (LHAMS), and Libyan Arab Airlines Company (LA), respectively. These three resolutions are in line with the government privatisation's legislations to break up Libyan Arab Airlines into three different share holding companies or (*Sharikat Musahima*), namely: (1) Libyan Arab Airlines company (LAA), (2) Libyan Handling and Aircraft Maintenance Services (LHAMS), and (3) Libyan Air Services Catering company (LASC).

At the beginning of the privatisation process, a special privatisation committee was formed by the Libyan government consisting of accountants, lawyers, airline specialist, aircraft technicians, and a Civil Aviation Authority consultant. The committee undertook the evaluation of the LAA assets, with focus made on financial position and restructure of LAA liabilities. The committee recommended the following: (i) The Libyan government should take the financial responsibilities of LAA's debt that accumulated during the years, particularly towards the fuel suppler companies, (ii) The Libyan government should help the three companies: LAA, LHAMS, and LASC to secure and guarantees loans from banks for purchasing equipments and leasing or purchasing aircrafts, and (iii) expedite the actual privatisation process to avoid interruption of service and operations.

The actual privatisation process commenced when LAA, with all of its three activities (Air transport of passengers and cargo, airport handling and aircraft maintenance, and catering services), were sold 100 % to government entities, private institutions, and to the public at large. The shares were divided among the following shareholders: (1) The Libyan Foreign Investment Company (LFIC),12%; (2) Libyan Arab Foreign Bank (LAFB), 12%; (3) The National Investment Company (NIC)[1] with, 25% and (4) The remaining shares of 51% were available for the public.

However, most of the above investors never paid their capital investment in full for the new share holding companies, LAA, LHAMS, and LASC. Furthermore, the Libyan commercial law states that the announcement and commercial registration of any new company cannot take place unless 30% of its capital was paid off by investor(s). Consequently, two of the major investors, the LFIC and the LAFB, who are state-owned institutions, withdrew their investments completely; the private investors were also cautious to be part of the newly born companies.

[1] The NIC, is a share holding company, shares are accumulated and funded by using 1.5 % of the employees' salaries throughout the years since its establishment in 1986, under Law Number 1/1986.

As a result of the uncertainty and the ambiguity of the privatisation program, the privatisation process could not move forward, and the new private companies could not be established. Therefore, the Libyan government found itself in a difficult situation, which includes interruptions of operations and activities, as well as dramatic decline in efficiency. In addition, the employees were very doubtful about the prospect to keep their jobs, hence, their moral was down; subsequently, the Libyan air transport union found itself in a very awkward position with its members and had to interfere with the government for very wide and tough discussions.

Essenbert (2005) found that undoubtedly there was a strong government commitment to see the process to fruition is an essential ingredient for successful privatisation program. In order to move the privatisation program forward and to stimulate the willingness and belief of some members of the Libyan government and their intentions to carry on the privatisation program without any setbacks, the government committee sought a legal opinion concerning the conditions of the Libyan commercial law in reference to the selling of shares. The government committee was giving the go ahead by selling the remaining shares which represent the majority of shares to the major share holder, the NIC to own almost 95%, as a way out of the constraints of the Libyan Commercial Law, to announce that the three new companies as private share holding enterprises as quick as possible to minimise the possibility of the failure of the privatisation process. Such move by the government led to establishing a steering privatisation committee, which consisted of experts from the Civil Aviation Authority and airline officials to undertake responsibility to reform the LAA Company, as well as, to take responsibility for the implementation of the privatisation plans. An essential task by the privatisation committee was to provide a financial report in reference to the capital that set up a 100 million LYD for LASC, 25 million LYD for LHAMS, and 15 million LYD for the catering company. According to one of the committee members, the amounts of capital were not sufficient for establishing new companies.

Due to the lack of new funds to purchase or lease aircrafts, purchase of new equipment, significant employee's unrest, and the disadvantage of keeping the majority of shares in one hand (about 95% of the shares are owned by the NIC), the government interfered and introduced a new government investor, the Economic and Social Development Fund (ESDF)[2] . The new investor injected 150 million Libyan Dinars to own 60 % of the shares in the three companies, while the NIC keeps 35% of the shares and 5% for individual citizens.

[2] The ESDF is financially independent institution, directed by the Libyan government, and established in 2006.

4.4 Privatization Process and the Workforce

A common concern during the privatisation process is the consequences that privatisation has on the workforce of any industry worldwide. The general view that exists across the world is that privatisation will result in job losses to say the least. This section, therefore, examines the situation of the workforce during the privatisation process of LAA and how the privatisation committee dealt with this issue in the newly established companies: LAA, LHAMS, and LASC.

Since employment is a complicated issue for most privatisation programs, it was the main concern for the privatisation committee. Employee surplus has always been one of the most fundamental issues facing privatisation program. Without doubt and in pursuit of efficiency and productivity for its members, the air transport union also faced the same issue. By its nature, the union devotes its time and effort to saving jobs for its members. To overcome this concern, several alternatives were proposed by the union and the government committee, yet still have to be approved by the GBOT. The proposal that was suggested by the union and the privatization committee and presented to the GBOT has the following schemes: Early retirement incentives, favourable pension plans, and severance payments. Although the early retirement incentive was the most attractive scheme, initially it was favourable for only few employees.

The number of employees in the overstaffed LAA[3] was 7243 employees at the end of 2004. In 2005, the number of employees dropped to 6690 employees due to measures such as retirement, and early retirement incentives. At the beginning of 2005, the number of employees still under the control of LAA administration but by the end of 2005, the number of employees was divided among the three new companies according to their specialties and knowledge. During the privatisation process, about 1100 employees had an early retirement, while 375 employees were allocated to other public organisation. In table (1) below, the numbers of employees are shown for LAA before and after privatisation is shown.

[3] LAA was over staffed for the past years; it exceeded the international average per aircraft. LAA was about 400 employees for each aircraft, while the norm is in the range of 120 to 200 employees per aircraft.

Table (1) Total of Employees of LAA before and after Privatisation

Year	Number of Employees
2004	7243
2005	6690
2005 (after privatisation immediately)	2285
2006	2135
2007	2080
2008	2001
2009	1900
2010	2029

Source: Civil Aviation Authority, Luheshi (2008, 2010)

4.5 Case of Libyan Arab Airlines Company

4.5.1 Profile of the company

Libyan Arab Airlines was registered as a privately owned company in the fall of 2005. The main activities of the new company are to provide passengers, mail, and cargo air transport services domestically and internationally. Luheshi (2008) indicates that, at the time the airline was privatised, some of the equipments (especially aircrafts) were obsolete and were of insignificant commercial value. Nevertheless, the company owns and operates a small fleet of aircrafts which consists of 2 Airbus A300-600, 2 ATR 42-500, and 5 Bombardier CRJ 900. The company also has confirmed orders for 4 Airbus A320 to be delivered towards the end of 2010, 2 Airbus A320 and Airbus A330 to be delivered in 2011, and one Airbus A320 and 2 Airbus A330 delivery date in 2012. LAA now flies to 10 destinations in Europe, five in North Africa, and three in the Middle East. A recent report by the airline stated that the carrier has launched in the summer of 2009 three weekly flights from Tripoli to Madrid, Munich, Athens and Ankara, 2 weekly flights from Sebha to Niamey in Nigeria and 2 added weekly flights to the Sudanese capital Khartoum from Benghazi. In addition, one executive from LAA mentioned that the airline has also announced the expansion of its route network to include daily flights to Tunis, Cairo, Alexandria, Dubai, Amman, Casablanca, commencing from mid June 2009. However, another top executive pointed out that the reputation of LAA had been poor due to low productivity, poor performance, and low efficiency. In addition, the inexperience of some of the new owners, as well as, part of the new management team that took over since the company became private are factors that may have restricted the carrier's growth for a few years before the level of experience, improvement in services, and an increase in routes can be built up. The ownership structure of LAA consists of 60% stake owned by the Economic and

Social Development Fund and 40% is owned by the private sector. ESDF as a government entity owns the majority shares 60%. The rest of the shares were divided between the National Investment Company (NIC), which owns 35%, and private citizens with 5% (Luheshi, 2008). It is worth noting that NIC is a national holding company (Ahlia)[4] with funding from government employees salaries but the management of NIC is appointed by the government.

4.5.2 Case Analysis

The study analyses at company level the effects of the privatisation process on the elements of reforms. According to the developed framework these elements are:

- Managerial behavior,
- Exposing company to capital market,
- Introduction to new technology,
- Differences in share distribution,
- Downsizing (employment), and
- Corporate governance.

Interpretation of the results of the empirical study has been achieved through observations and mainly through the interviews that were conducted during the field study visits. These sources of evidence revealed that the company's activities have been facing changes as a result of the privatisation process. The changes affecting the elements of reform at company level (in line with the conceptual framework presented in figure 2 above) because of the privatization process the elements of change are discussed below. Each element can be defined concerning the privatisation process.

4.5.2.1 Managerial Behavior

After privatisation, the general feeling in the new organisation shows a strong intent to change the management behavior. The management is actively trying to apply the latest managerial techniques in its operations such as the improvement of the competencies of the pilots and aviators with respect to new aircrafts and aviation technology. In order to implement new changes in the organisation, the company needs a strong commitment from its management team to implement the

[4] Ahlia sector is another term used in the country as a private sector.

new techniques and to proactively seek financial support from its owners to execute the new plans. One of the actions taken by the new management for improvement is hiring international consultants for their expertise in development of strategies of the companies in penetrating new markets by signing agreements with international carriers like Lufthansa and Austrian airlines for code sharing. The firm is still seeking partnerships and alliances with major carriers.

The new management recognised the need for efficient organisation structure by reducing unnecessary staff and lowering management ranks. However, the stakeholders took no action in this direction because of lack of government approval. While the direction by the management is to change the overall organisation, the practice and the results are yet to be realised. Shortage of funds and constant government interference in its day-to-day affairs prevent the management from moving forward with its plans toward constructive management behavior.

With privatisation came increased responsibility and accountability for the management in the firm. One cited example involved control of the pricing of local flights, which used to be low by a government directive before privatisation. The government used to pay LAA the difference between the actual ticket prices and the discounted prices. The management inherited the subsidised pricing structure previously set up by the government, which was not returning high revenues but instead was impairing its profits. The new responsibility is to be profitable and to do so is to reject the subsidised prices and to demand market value for tickets because the government will not pay the difference in the fairs, as a result of the 2005 privatisation process.

From a different prospective, the decision making process seems to be somewhat changed. According to a senior manager, the decision making process is easier, faster, and encouraging, in small scale, to create and implement new projects such as participation in conferences and air shows. On the other hand, major decisions such as purchasing aircrafts are still slow and seem to go through a complex network of bureaucracy due to government influence. In addition, confusion within the staff and management ranks as to whether the company is independent or still a government-controlled entity is largely responsible for poor decision-making or lack thereof.

4.5.2.2 Capital Market

The company is not currently listed in the Libyan Stock Exchange (LSE). This may not be entirely the company's fault since the market is still in the early stages of development. At the time of privatisation, the government was working on the development of a local stock market from the grounds up with consulting firms and the financial community. Nevertheless, the market has opened its doors for enrolment and for trading of participants’ shares. The financial manager asserted that it is anticipated that the company will register its name for trading its shares publicly. Since the current public ownership is very small, the trading volume will amount to an insignificant effect. It is possible; however, that the majority owners may offer their shares to the public assuming that the government approves it. Without participation in the market and publicly trading its shares, influence may be limited to the current owners only.

4.5.2.3 Introduction to new technology

Airlines rely heavily on Information Technology (IT) to help reduce costs and improve operational efficiencies, a technical manager explained. In this business, competition is fierce. If the company does not push for new technology, it will lose market share that will diminish its customer base. In essence, “Do or die to stay with the rest of the world," as one of the managers mentioned in the response. Since the introduction of new technology, it is still early to judge its impact and there are no immediate results to observe. On the other hand, according to some other managers' statements, the new technology may increase the amount of investment in the short run, but it has a positive impact on cost on the long run. In other words, ultimately it will reduce the cost of activities. The impact also will certainly improve the response of the company to its customer base and to make it current with the market needs.

Furthermore, the new technology was relevant for the development of the company by reducing the number of employees; its impact realised when the extra workforce was replaced and at the same time, a smaller number of highly trained staff was hired to work with the new adopted technology.

Since privatisation, the company has introduced the use of technology infrastructure such as new computers, computerised systems, which require implementation of new networks internally and externally to enable communication with others. An immediate application to the new technology is electronic ticketing (E-ticketing is in operation now)[5]. Although it was one of the requirements of IATA, the privatization process expedited the deployment of this technology. Document Management System (DMS), computer software, is another technology adopted after privatisation for integration of company documents in one online system. One of the critical steps in the airline business is updating the fleet with new aircrafts with the latest advanced technologies in aviation and passenger safety and comfort. The direction by the management after privatisation

[5] On 1 June 2008, the air transport industry moved from the paper age into the full electronic era. Together, IATA, the airlines, travel agents, airports, and system providers.

is to purchase new aircrafts from Airbus. The company announced agreements with Airbus and Boeing to acquire mid range planes in local and international media. Airbus pioneered the fly by wire concept. It also introduced the latest technology and innovation in aviation especially in the cockpit. LA incorporated customised installation such as personal videos for passengers in the cabin of aircrafts, the airbus A320 and A330. Furthermore, LAA is the first African airline to offer in-flight mobile phones and Internet connection on their new Airbus A320s, which will be installed with Mobile On-Air technology. According to a top manager statement, aboard these Libyan Airlines aircrafts, passengers will be able to stay in touch with business colleagues, family, and friends, while they travel.

Additionally, new direction since privatisation is to use outsourcing or spinning off work to new companies through joint ventures under the holding company. Areas of interest are in training employees and outsourcing IT operations. Other examples include leveraging SITA[6] (Société Internationale de Télécommunications Aéronautiques) services to include messaging instead of telex based messages because of higher reliability and speedy delivery. Since privatisation, LAA also built a network in the Tripoli International Airport to enhance and improve its flight operations and customer services.

At the time of writing, the company was working on development of a website and to introduce a 'frequent flyer' program to be integrated with the website. The website will include integration with a reservation and booking engine from Amadeus. Access to websites by customers reduces the cost of reservations to LAA instead of using travel agencies and sales agents.

4.5.2.4 Share Distribution

The ownership structure presents the share distribution after privatisation: (i) the Economic and Social Development Fund (60%), (ii) the National Investment Company (35%), and (iii) Individual citizens (5%). The ESDF as a government institution owns the largest number of shares in the company with 60% stake. The government and ESDF in turn appoint the management staff to be in charge and also to be in control of daily operations, which effects the decision making process. With the majority of the distribution of shares going to the ESDF and a government appointed staff, the company is left vulnerable to typical bureaucratic methods of administering the business and potentially susceptible to corruption.

[6] SITA is the world's leading service provider of integrated IT business solutions and communication services for the air transport industry.

4.5.2.5 Downsizing (Workforce)

After privatisation, the company was forced by the government to keep its employees. However, early retirement incentives were offered to eligible employees in order to reduce the workforce. Later on, the company closed the early retirement incentives for no clearly mentioned reasons. Perhaps the reason was due to fear of losing its strong base of expertise to the competition as stated by one of the interviewed managers. In addition, the responses to the interviews with the top managers were divided with respect to productivity and impact to the efficiency of the workforce. Some respondents believed there was no increase in productivity and thus no efficiency in the workforce was observed. This was partly caused by the uncertainty of the employees in the future of the company. Other respondents showed a mixed feeling about the impact on the employees after privatization. There was a sense of productivity increase in some areas while no change in others. Similarly, there was some efficiency in the workforce seen at individual supervisory levels in some locations.

By observing the privatisation process' impact on employees, it appeared that it had an effect by providing employees with early retirement incentives. The impact was somewhat negative with respect to productivity and efficiency of the workforce, based on the response of one of the top managers, because of losing key employees and experts. On the other hand, the benefit of early retirement incentives reduced the cost of payroll to the company.

The company still uses Law number 15/97, which limits the size of salary compensation for government employees. However, after privatisation the company began hiring contract-based employees or switching existing workforce to use contracts as opposed to long term hiring. The salaries have increased substantially and new incentives were introduced. This has removed the old model of permanent employment "job for life" with a new one based on pay for performance.

4.5.2.6 Corporate Governance

The Company's goal is to be a world-class organisation that can keep up with the global changes and challenges in the airline industry. The company wants to be competent and capable of competing in its industry in an "Open-Sky era," as described by one of the respondents. Internally, the company wants to build new relationships and improve existing ones between the top management and the employees. There were indications of setting up a new vision for the company but it is not formally expressed in the respondents' answers. To some extent, the new goals were different from the old ones mainly with respect to building and improving relationship between the management and the workforce and to concentrate on the core business of the company. Regarding improving the relationship between the management and the employees, the company planned new training for the pilots on the newly purchased aircrafts in addition to upgrading the training of the engineering staff on existing and new equipment. Some of the training activities were completed and others are still in progress. These efforts are widely appreciated by the staff and in return, they kept their positions and became loyal to the company, considering what they have gone through during the UN sanctions, which deprived them from any training.

According to one of the top managers' statements that there was no long-term business plan yet but the goals of the company have become more specific and focused on the core business that is carrying passengers and cargo instead of broad-based services to include catering, flight handling services, and aircraft maintenance.

4.6 Experience From Other Developing Countries

Based on our review of the literature concerning the privatisation process in the air transport industry worldwide. Air transport in developing countries, in particular, has traditionally been highly regulated industry, controlled by state governments, dominated by national flag carriers' saga, and state-owned airports. However, some of these developing countries have gone through dramatic economic reforms over the past few years. The literature also provides significant cases to look into (Boubakri and Cossett 1999). The most significant privatization process that was carried out in Africa is the transformation of Kenya Airways from a loss-making SOE to a privately owned profitable airline (Debrah and Toroitch, 2005). While in the Middle East, the Royal Jordanian (RJ) privatisation process is also considered a remarkable case (Nawssera, 2006). In this section, we will discuss the privatization process of two success stories in the air transport industry in developing countries, Kenya Airways (KA) and Royal Jordanian (RA), and compare the main issues of the process and the success factors with our case study, LAA. Table (2) demonstrates the comparison.

In the two cases, the success of their privatisation process was due to many factors. The strong motivation and the commitment of their owners (respective governments) have contributed largely to their success. In addition, the careful preparation and planning had also a great effect on steering the process to its success.

Table (2) Comparison of Airline Privatization Cases in Developing Countries

Issues \ Airline	Kenya Airways	Royal Jordanian Airlines	Libyan Arab Airlines
Date of Privatisation	1996	2001	2005
Government will	Strong	Strong	Weak
Clear statement and determination from the government to privatize	Yes. Throughout the whole process	Yes. Throughout the whole process	Not clear statement
Method of privatisation	Initial Public Offering (IPO)	Initial Public Offering (IPO)	Trade sale
Ownership structure	23% Gov. 77% Private	29% Gov. 71% Private	60% Gov. 40% Private
International institutions involved in the privatisation process	World Bank through the IFC	IMF World-Bank through the IFC	None
Airline alliances	Sky-Team	One World Alliance	No
Access to stock market	Yes	Yes	No

In the case of the KA, with the advice of the International Finance Corporation (IFC), Kenya airways went through commercialization phase first. The Kenyan government assumed all debts of the airline. Shares then were offered on Nairobi Stock Exchange, yet the share offer came first by purchasing of a 26% stake in the airline by KLM Royal Dutch Airlines. A complete cooperation agreement was put forward between Kenya Airways and KLM detailing corporate governance and management. As a gesture from the government to broaden the ownership for the Kenyan people, over 113,000 Kenyan citizens were able to buy 22 percent of the shares in the national airline. Employees of the airline also participated in a special program by which they were to obtain 3 percent. The success of Kenya airways was also owed to the restructuring of the airline with the help from an international consulting firm, Speedwing. Overall, privatisation, has drastically improved the reliability and performance of the carrier. Kenya airways are now among the market leaders in flights both between Europe and Africa and within the continent Africa.

The privatisation process of Royal Jordanian was also carried out in phases. At first, RJ restructured its financial obligations through proceeds from the sale of the supporting activities; the catering, the aircraft maintenance, airport handling, and the duty fee shops. By doing so, RJ concentrated on its core business of carrying passengers. In addition, the Jordanian governments accepted the debts that owed to the airlines.

The privatisation process was conducted with the initial public offering method. The ownership structure of the new privatized RJ is as follows: The government retained 29% of the shares while 71% is owned by the private sector; foreign investors own 34%. The IMF as a consultant to the privatisation process indicated that foreign direct investment (FDI) inflows in Jordan remained strong for the past few years. Moreover, the international reserves increased substantially which support the privatization process in RJ. Today, the airline is listed on Amman Stock Exchange with the appointment and engagement of a financial advisor Citigroup to smooth the progress of privatization.

The success of Royal Jordanian's privatization process owed to certain factors such as the government determination by appointing an inter-ministerial committee headed by the prime minister, the assistance of the World Bank through the IFC, the IMF, and the support by the financial institutions, which allowed the airline to initiate new strategy that has put it in a solid financial position. The carrier has acquired new aircrafts and joined the One World Alliance. Royal Jordanian is far better since its privatization.

Unlike Kenya airways or Royal Jordanian, LAA privatised by direct sale, in which the government retained the majority of shares by the use of government corporations. In addition, the newly established state owned stock market did not play any role at the time of the privatisation process of LAA.

Although the main objective of the privatisation program in Libya was to broaden local citizens' participation, but minor efforts have been made in this direction. Furthermore, there was no clear statement from the government pertaining to the privatisation process of the air transport industry

In the privatisation of LAA, the government has kept 'golden share' status of the airline and its supporting activities, which gave the government the right to veto major decisions concerning critical issues. This is one form of political influence on the air transport industry. Therefore, the privatisation process has stalled and considered a failure. The Stagnation of the process was due to the above-mentioned reasons and mainly to the lack of the political will.

Finally, in contrast with the Royal Jordanian and Kenyan Airways privatisation process, the LAA' privatisation program needed teams of competent planners and advisors. This seemed to be missing in our case. In addition, one can conclude that the privatisation process in Libya (in the air transport industry) could have been carried out in better ways and yielded expected results than it is now, had there been a strong government will and determination with reasonable and basic preparations prior to its take off.

5.0 Conclusion

Libya is one of those countries where the government intervened directly for the past three decades in the production and distribution of goods and services for ideological and pragmatic reasons, often to control strategic natural resources, such as gas and oil production for export. Nevertheless, in recent years, Libya has moved slowly towards liberalising its economy with an attempt to create the proper environment to engage the private sector in its endeavour.

Although the past decade witnessed significant steps forward in the Libyan economy, economic reforms have been gradual and unsystematic. In 2003, the Libyan government stressed the need for the privatisation of some of the government owned enterprises (SOEs). The Air transport industry was no exception; it was one of the industries considered for privatisation in this period where a dynamic aviation regulatory change was taking place worldwide. Libya has moved slowly in the realm of air policy liberalization, but the shape and the size of commercial aviation in the country have been heavily influenced by government decisions.

When the Libyan government announced its privatisation program; the motivation and the apparent objective of the program was to encourage wider participation by the Libyan people in the ownership of the SOEs, which was designated for privatization.

The air transport industry in Libya has been affected by the openness and the ambitious plans of liberalisation and privatisation, even though the changes have been slow to come. Literature claims that securing the ambitious plans and aims of the Libyan privatisation programs appear to be nothing more than elusive at this stage. Nevertheless, few small privately owned airlines entered the air transport market and the privatisation wave has swept the national carrier Libyan Arab Airlines (LAA). LAA was one of those SOEs to be put up for privatization. This led to the break-up of LAA into three different companies.

Using the research conceptual framework; the privatization process has been examined in the three companies and the analysis of each company has been carried out according to the research model. The elements of reform were investigated and analyzed.

The changes caused by the privatisation process were slow. In addition, the common factor in the analysis is the government interference in the privatisation process in LAA, where the government exercises greater control over management because it remains the majority shareholder, which gives it the upper hand.

Following the privatisation process, and based on the outcome of the case study research; no conclusion was drawn in the specific area that was being investigated. Lack of documentation coupled with the unwillingness to provide data on this particular process by the management concerned, clearly indicated that the privatisation process was far from complete. This comes as no surprise to economists and analysts who follow and track the Libyan public and private sector. They are fully aware of how the internal system operates in Libya, including the manipulation, the power and influence of certain political forces that will meddle and interfere and at the same time will go to great lengths to prevent any form of privatization from taking place if it does not match up their personal interest.

Given the above circumstances, the privatisation process has not only been hampered, but has reached a point of stagnation. As long as the current situation persists, it cannot be expected that the objectives and policies which were laid out initially at the outset will be met. The privatisation process in Libya (in the air transport industry) could have been executed on a professional level which would have yielded positive results had there been a strong willed and determined government, whose objective and desire was to ensure that reasonable and basic preparations were made prior to the take-off of the program.

One can conclude and recommend that air transport privatisation and the method of carrying out the policy have to be selected carefully. Attention must be given to important social, political, and economical issues in order to secure a successful process. In addition, the privatisation process in developing countries needs support from international agencies such as the World Bank and/ or the International Monetary Fund. It is therefore, for the privatisation process in the air transport in Libya, it is essential to have such agencies as consultants at the beginning and during the process.

References

Aboujdiryha, A. (2011). Privatisation Processes and Firm Performance: The Libyan Industrial Sector, PhD Thesis, University of Twente, Netherland.

Alfourjani, S. A. (2005). The Program of Extension the Ownership-base and Fund Small and Medium-size Firms, the Libyan Experience, *The GBOT Magazine*, Vol: 3, pp 30-37. In Arabic.

Alsouia, M. (2005). Program of Extension the Ownership-base, *The GBOT Magazine*, Vol:3, pp 24-27. In Arabic.

Altunisik, M. (1996). A Reinter State's Response to Oil Crisis: Economic Reform Policies in Libya. *Arab Studies Quarterly 18*.

Beh, L. and Alameer, A. (2012). Privatisation in the Middle East: An Insight into Yemen's Initiatives, *Middle-East Journal of Scientific Research*, Vol. 11 (10), 1327-1389.

Bell, S. (1995). *Privatisation Through Broad-Based Ownership Strategies: A More Popular option.* New York: World Bank.

Beyer, H., Rojas, P., & Vergara, R. (1999). Trade liberalization and Wage Inequality. *Journal of Development Economics, 59*. BG. (2002). *The Economic Impact of an EU-US Open Aviation Area* Washington, DC. Brattle Group.

Birnberg, J., M. Shields, and S. M. Young, (1990). The Case for Multiple Methods in Empirical Management Accounting Research (With an Illustration from Budget Setting), *Journal of Management Accounting Research*. Vol. 2, 33-66.

De Castro, J., & Uhlenbruck, K. (1997). Foreign Acquisitions in Central and Eastern Europe: Outcomes of Privatization in Transitional Economy. *The Academy of Management Journal, 43*(3), 331-402.

Debrah, Y., & Toroitich, O. (2005). The Making of an African Success Story: The Privatization of Kenya Airways. *Thunderbird International Business Review, 47*(2), 205-230.

Essenbert, B. (2005). *The Future of Civil Aviation in Africa: Restructuring and Social Dialogue*. Geneva: ILO.

Ghauri, P., & Gronhaug, K. (2005). *Research Methods in Business Studies: A Practical Guide. (3rd ed.)*. Upper Saddle River, New Tork: Prentice Hall.

ICC. (1995). *Policy statement,* Commission on Air Transport, State Aid to Airlines. International Chamber of Commerce.

Kamaruddin, B. and Abokaresh, M. (2012). The Performance of Privatized Firms: Empirical Analysis for Libya**.** *International Review of Business Research Papers, Vol. 8(6), 134 – 148***.**

Kiekeri, S., & Kolo, A. (2005). *Privatization: Trends and Recent Development.* (Policy Research Paper No. 3765). Washington D.C.: World Bank.

Langfield-Smith, K. (1997). Management Control Systems and Strategy: A Critical Review, *Accounting, Organisation and Society*. Vol. 22, 207-232.

Little, D. (2011). Preparing for Privatisation in the Middle East. World Bank Publications.

Luheshi, Y. (2003). *International Passenger Movement* Tripoli: Libyan Civil Aviation Authority.

Luheshi, Y. (2006). *A Study of Airport Strategies & Air Transport Industry in Libya*. Tripoli: Libyan Civil Aviation Authority.

Luheshi, Y. (2008). *The Passenger Traffic at the Major Airports in Libya*. Tripoli: Libyan Civil Aviation Authority.

Luheshi, Y. (2010). *Restructuring of Libyan Arab Airlines*. Tripoli: Libyan Civil Aviation Authority.

Megginson, W., R, N., Netter, R., & Poulson, A. (2004). The Choice of Private versus Public Capital Markets: Evidence from Privatizations. *Journal of Finance, 59.*

Morris, J. (1999). *Public Works Management & Policy, 4*(2), 152-155.

Nawasrah, M. (2006). *Privatization of Royal Jordanian Airlines*. Amman: Royal Jordanian Airlines.

Otman, W. and Karlberg, E. (2007). The Libyan economy: Economic diversification and international repositioning. Springer-Verlag Berlin Heidelberg New York.

Privatisation Investment Board (PIB) (2013). *Annual Performance Report* (in Arabic). Tripoli: Privatisation Investment Board.

Parker, D. (2004). The UK's Privatisation Experiment: The Passage of Time Permits a Sober Assessment. CESifo Working Paper No. 1126.

Parker, D. and Kirkpatrick, C. (2007), Privatisation in developing countries: A review of the evidence and the policy lessons, *Journal of Development Studies,* Vol: 41 (4), 513-541.

Ramady, M. (2006). Privatisation Management — Employee Dialogue: Saudi Leads the Way. *Arab News*.

Ramamurti, R. (2000). A Multilevel Model of Privatization in Emerging Economies *the Academy of Management Review.* (3), 525-550.

Robinson, M., & White, G. (1997). *The Role of Civic Organization in the Provision of Social Services*. Helsinki: World Institute for Development Economics Research.

Shernna, F. and Alfourjani, S. (2007). The relationship between the program of extension the ownership-base, privatisation, and partnership, *The GBOT Magazine,* Vol: 7, 16-17. In Arabic.

Vandewalle, D. (1998). *Libya since Independence: Oil and State Building*. New York: Cornell University Press.

World Bank. (2006). *Libya; Economic Report*, Social & Economic Development Group, Middle East and North Africa Region (Report No. 30295-LY). The World Bank.

Yin, R. K. (2003). *Case Study Research: Design & Methods* (Vol. 5). Thousand Oaks: Sage Publications, Inc.

Zahra, S., Irland, D., Guierrez, I., & Hitt, M. (2000). Privatization and Entrepreneurial Transformation: Emerging Issues and a Future Research Agenda. *The Academy of Management Review, 25*(3), 509-524.

The Annual Conference of Economic Forum of Entrepreneurship & International Business ISSN: 1925-461X
The 4th Annual Conference of Economic Forum of Entrepreneurship & International Business ISBN: 978-0-9869581-2-0

Access and use of ICTs in female-owned SMEs in selected Arab Countries and Brazil: A comparative study

Mona Farid Badran, Ph.D
Faculty of Economics and Political Science
Cairo University, Egypt

m.badran@cu.edu.eg, Samifarah.mona@gmail.com

Abstract

This research paper embarks on a comparative empirical study to investigate the impact that ICT plays on empowering women entrepreneurs in 5 developing/ emerging countries, namely Egypt, Jordan, Morocco, Algeria, and Brazil. The World Bank's Investment Climate Assessment Surveys (ICA), are the primary source for data, for the four Arab countries, and Brazil. The ICA database provides comparable enterprise level data based on similar sampling techniques. The results obtained from the empirical study reveal that in the selected Arab countries, the increase in female owned SMEs is associated with a decrease in the Internal Rate of Return. However, when we control for ICT in terms of ICT index constructed using the Principal component analysis technique (PCA), the female owned SMEs becomes statistically insignificant, as well as the ICT index. This implies that IRR is negatively associated with the female owners of the SME, and there is a no association between IRR and the access and use of ICT. In Brazil, however, neither gender nor ICT played any role in the profitability of SMEs. However, as for the other measure for economic performance, namely the labor intensity, the findings reveal that in the selected Arab countries, the ICT index has a positive, statically significant, association with labor-intensity, while in Brazil the usage of a Website has a negative, statistically significant, association with the labor-intensity.

Keywords: SMEs, females, Arab countries, Brazil, ICT, ICA survey

JEL-classification: J16, M13

1. Introduction

Empowering women in developing countries, including the Arab countries, as well as in emerging countries such as Brazil, is considered a vital issue for social and economic development (Verheul ei al 2007, Naser et al 2009). Female entrepreneurship represents a potentially valuable tool for promoting growth and elevating poverty (Klapper et al 2010). In this respect, it is important to refer to the Grameen Bank model and other micro-finance schemes that lend mainly to women, to buy cell- phones and provide mobile pay phone services (Teltscher 2002, Niethammer 2013). It is an established fact that one of the UN Millennium Development Goals is gender equality and women empowerment, and it has been argued that ICT can be the vehicle to achieve this goal (Badran, 2010). In the realm of SMEs in the considered countries, female-owned firms represent 30-37 percent of all SMEs. Furthermore, jobs in small and medium enterprises (SMEs) account for more than half of all formal employment worldwide. (IFC 2013)

Historically, starting in the 1990, many SMEs in developing countries, albeit a smaller number, began to include modern information and communication technologies in their enterprises. This trend can result in an increase in the returns for enterprises and productivity. In addition it can make training and education more accessible for workers. This can eventually lead to increase of employability of low skilled workers. (IFC 2013)

Another vital motivation of present study is the fact that female- owned SMEs by using the Information and Communication Technologies (ICT), can move up the value chain and reach higher value –added products. Thus, owners of SMEs reach out to new technologies and innovations, while the latter require more skilled workers. (IFC 2013)

This progress can also result in reduction of poverty, especially since the majority of female owned SMEs are entering the business because of necessity and not opportunity. (GEM report 2012)

In some cases, business owners and managers, regardless of their gender, lack the requirements to manage and promote their businesses using new technologies. This results in limiting their potential for growth and job creation. Innovation and technology advances can be regarded as a solution for the obstacles facing SMEs, by promoting the skills of the labor force and in particular the female owners of SMEs. (IFC 2013)

In most developing countries, female-run enterprises tend to be undercapitalized, having poorer access to machinery, fertilizers, information, and credit than male-owned enterprises.

Laws, regulations, and customs restrict women's ability to manage property, conduct business, or even travel without their husbands' consent.

Disparities also exist in women's workforce participation. Women are three times as likely as men to be hired informally, and are much more likely to be unpaid workers that contribute to the family's business. (WDR 2012)

Such discrepancies impair women's ability to participate in development and to contribute to higher living standards. From a competitiveness perspective, women's disproportionately low participation in the workforce, can reduce the pool of applicants, distort the allocation of talent and productivity of human capital, and thereby reduce the average productivity of the labor force. (World Bank, WDR 2012)

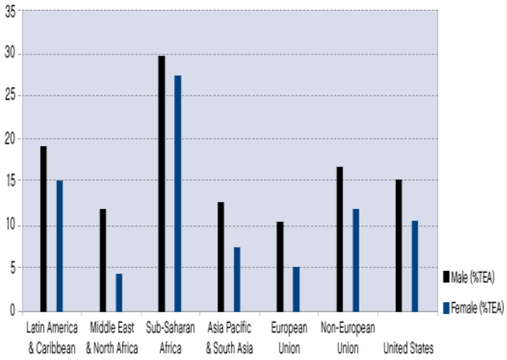
Recently, the increase in the number of female-owned enterprises is much higher than that of male counterparts in developed countries, according to Niethammer 2013. Furthermore, there is no evidence that women-owned enterprises fail at a faster rate. In this respect, it is important to mention that women, who start their business motivated by an opportunity, is higher in high-income countries than in low-/middle-income country groups, while in the latter region, women entrepreneurs are more likely to start their business just for necessity reasons. (Niethammer 2013)

A key impetus of the study at hand is the substantial percentage of female owned SMEs in emerging countries. Although they don’t constitute the majority of SMEs owners in developing countries, but according to the IFC in 2013, female -owned small and medium enterprises (SMEs) represent 30 to 37 percent (8 million to 10 million) of all SMEs in emerging markets. Several case studies show that ICT can, and is actually, empowering women in developing countries (Badran 2010). For example, ICT provides women entrepreneurs with access to worldwide e-business channels, which can be operated 24 hours a day from home in real -time (Heeks, et.al. 2004 ;Schaefer Davis,2007; Brodman and Berazneva, 2007; Hilbert,M. 2011).

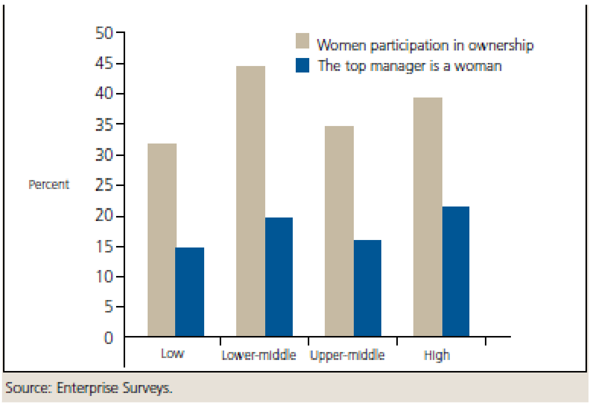
Figure 1A: The distribution of male/female enterprises according to region

Figure 1B: Women Participation in ownership and top management

1A



1B



Source: GEM Report 2012

In Figure 1A, according to the 2012 Global Entrepreneurship Monitor Report, (GEM 2012 Report), female entrepreneurship rates are significantly high in Latin America and the Caribbean region, and are relatively low in the Middle East and North Africa region. An important trend in this respect is that the number of female entrepreneurs reflects the general trend for entrepreneurship conditions in the specific country. In addition, Latin America and the Caribbean region are efficiency driven economies, while Middle East/North Africa (MENA) region contain predominantly factor-driven economies.(GEM report 2012). Figure 1B is taken from to the World Bank's Enterprise Surveys (ES). It depicts that for those females who are engaged in SMEs, female participation in ownership is much higher compared to the females in top management, especially in developing countries compared to other regions in the world.

Policymakers are progressively investigating and developing new ways of empowering women by promoting economic activity and growth among them in developing countries. Furthermore, the increased uptake of access ICTs such as access and use of the Internet and Broadband, having a website for the small businesses, using emails, etc. (ICA survey 2008), should be contributing to overall growth and increased productivity level of female-owned enterprises. This is quite important and relevant to empowering females in general and female-owned entrepreneurs per se, as those SMEs that adopt these new techniques of doing business, enjoy a competitive edge compared to the rest of the SMEs, that don't incorporate ICT in their production technique. Other ways that ICT can contribute to the growth of the female-owned SMEs include tele-working, e-commerce, and outsourcing (Maier et al 2007).

On the macro- level, it has been well documented and researched , the vital role of ICT in development allowing the developing and emerging countries to leapfrog and excel in their economic and social development (for example Badran 2007; Badran et al 2011, Qiang 2009, Steinmuller 2001). Thus the question becomes whether these technologies can help female-owned SMEs to overcome their disadvantages and become more productive and profitable entrepreneurs.

This research paper embarks on a comparative study based on empirical techniques to investigate the impact that ICT plays on empowering women entrepreneurs in 5 developing/ emerging countries, namely Egypt, Jordan, Morocco, Algeria, and Brazil. The majority of the empirical literature on entrepreneurship discusses solely the hurdles that male entrepreneurs might be confronting when establishing SMEs. (Bardasi et al 2011, Brush1992). Little empirical evidence investigated the impact of ICT services such as Internet access and use on the economic performance of female- owned SMEs.

In addition, studies that have investigated the gender dimensions and explored the topic of women entrepreneurs have concentrated on developed countries (Brush 1992), as well as the determinants of female entrepreneurs. (Verheul et al 2006).

Thus the research question of the present study can be summarized by the following:

Does ICT play a role in empowering women entrepreneurs in these Arab countries and Brazil, and what is the difference in ICT impact on entrepreneurship between the 2 regions? Examining the lessons learned from Brazil's experience.

It is worth noting that the present research has a twofold value added: it focuses on the research question of empowering female entrepreneurship in Arab countries and Brazil. Further, it adds a new dimension to the existing literature by focusing on the role that ICT is playing to empower these female owned SMEs in the two considred regions.

In the next section, we examine the main characteristics of female entrepreneurship in Brazil and in Arab countries. This is followed by a survey of the pertaining literature. Then, we present a description of the data and methods used to estimate the suggested indicators that measure the performance of female owned SMEs. Finally the results are discussed and analyzed. We conclude with a summary of the key conclusions and suggested policy recommendations.

2. Female Entrepreneurship in Brazil and Selected Arab Countries:

In the outset, in the selected Arab countries combined female –owned SMEs constitute approximately only 15% of total entrepreneurs, while, females in developing countries own around 34.3 percent of small firms (IFC 2013). Thus the female –owned SMEs in the selected Arab countries are below the indicated level. However, in Brazil female owned SMEs are accounting for more than half of total SMEs owners. Secondly, females, per se, tend to own firms in the services sector and they are smaller in terms of sales, assets, profits, and employees. Finally, literature refers to the fact that entrepreneurs' wage gap between male and female is large (IFC 2013)

Female Entrepreneurship in Brazil constitutes an important benchmark for the female owned SMEs in other developing countries such as Arab countries. Most businesses in Latin America and in Brazil are micro and small enterprises. The motivation for most entrepreneurs in this region is the necessity or finance, rather than opportunity. Small enterprises in Latin America have an immense impact on job creation, and economic diversification. Middle class firms in Brazil specifically are recognized for being more involved in creating knowledge –based companies (i.e. new communications and software firms as well as internet related services, and other branches of applied electronics.). (World Bank 2013). The present paper draws attention to Brazil for the following facts; Brazil is one of the leading emerging countries (BRICS), and it is a leader in entrepreneurship, with an estimated one in eight adults being "entrepreneurs. Much of the business that occurs in Brazil is done by single business people either selling their homemade goods or providing their services. Also half of the entrepreneurs in Brazil are women (46%) in 2004, while 4 years ago it was only 29%. New programs have recently been started to help women to become even more involved in business. Opportunity based entrepreneurship and need based entrepreneurship are close to being equal (GEM Report 2012)

One of the major hurdles in starting a new enterprise in Brazil is paperwork. Thus, bureaucracy in Brazil is considered a major hurdle. Despite this, Brazil ranks very high on the Global Entrepreneurship Monitor (GEM) list of countries with the highest entrepreneurial activity. (International Entrepreneurship.org)

Female-owned enterprises in Arab countries tend to choose the service business sector (Coleman 2002, Rob (2002), Dechant et al (2005). The size of their business is relatively small, and they are prone to employ fewer employees. The latter study has empirically proved that the average size of female owned enterprises in Bahrain and Oman is small. The number of personnel employed by the women entrepreneurs in both Bahrain and Oman ranges between two and 60 people. (Naser et al 2009). Generally, the main features of the services sector is the low initial requirement of capital and thus low barriers to entry and easier way of starting a business.(Verheul et al 2007). In general services sector can provide better working conditions than agriculture, as well as more chances for women to be promoted professionally (IFC 2013). According to the latest GEM Report 2012, in the Middle East and North Africa region males have demonstrated four times the likelihood of entering a business compared to female. Women entrepreneurs in this region have large families, with an average of five people per household, and they operate primarily as one-woman businesses with no employees.

However, being a women entrepreneur in a developing country entails many hurdles that are worth investigating. These include limited access to credit, limited pool of human capital, hampering legal environment, and very expensive and complicated way to have access and use of ICT to promote their businesses. The latter , i.e. the impact of having access and use ICT for women owned SMEs, has not been well researched in empirical studies, especially in developing countries ,such as the above mentioned Arab countries and Brazil.

Other external factors that form an obstacle to Arab female entrepreneurship include family and community opinions and social norms (Badran, 2010). It is imperative in the context of the current research to highlight the relationship between women Entrepreneurship and business climate. From the Economic aspect, we find that women frequently face gender bias in the socioeconomic environment when it comes to establishing and developing their own enterprises and accessing economic resources. These not only disadvantage women, but also reduce growth potential, productivity, and performance of the economy as a whole. Gender-based inequalities impose significant development costs on societies. Women are active economic participants as business owners, workers, and managers globally. Apparently, there are positive correlations between women's representation on corporate boards and corporate performance, suggesting that women are good for business. Fortune 500 firms with the highest percentage of women corporate officers yielded on average 35.1 % greater return on equity and 34 percent greater return to shareholders than those with the lowest percentage of women corporate officers. (World Bank 2012, 2011)

2. Literature Review

There are only few empirical studies investigating the impact of use and access of ICT in female-owned enterprises, needless to say this relationship in Arab or emerging countries.

One of the most notable recent papers in this area of research was developed by the World Bank team of researchers, Bardasi et al 2011. The paper discusses the performance gaps between male and female owned enterprises using the ICA surveys but it is confined to three regions – Eastern Europe and Central Asia, Latin America, and Sub-Saharan Africa. They report that on average female owned enterprises are significantly smaller in terms of overall sales than those of their male-owned enterprises in each region. The concentration of women and men in specific industrial sectors follows very similar patterns in all regions, and there was no strong evidence of credit constraints. Some exceptions were found in Latin America region. They conduct an empirical analysis using multiple regression model to estimate their model. They also examine gender gaps in firm growth over a 3-year period, both in terms of employment and sales. In addition, they measure the gender gap and its impact on productive efficiency in terms of the revenue that they generate from given inputs.

Another paper that discussed the gender aspect in firm performance is the paper by Robb et al 2012. Although, in their paper, they focus on the US, many important conclusions are revealed regarding the impact of gender on SMEs performance. They come to the conclusion that female in the US are not in a disadvantage status in terms of necessary skills and financial resources to open their enterprise. Thus, according to this study, there is no empirical evidence that female-owned SMEs underperform male-owned ones because they are smaller or because female in the US prefer to take fewer risks. Gender has no impact on the performance of the firm, and that the differences within each gender are much larger than the average differences between the 2 genders. The study controls for performance measures such as 4-year closure rates, return on assets, and a risk adjusted measure in addition, other demographic differences such as industry, experience and hours worked.

Papers that have tackled the ICT impact of female-owned SMEs are scarce. One study by Martin et al 2005, investigated how ICT and the Internet influence the development of women entrepreneurs in UK using qualitative techniques. This paper's main focus is on female - owned ICT small enterprises. The latter found that female -owned SMEs gained advantage by experimenting with new ideas at work and at home. ICT and the Internet empowered female-owned SMEs where they became more autonomous and organized in their work. New business opportunities were explored with the help of ICT. Outsourcing, for example, were considered an important option to the female-owned ICT firms, where emphasis was put on new ideas and innovation.

In general, ICT enabled these female entrepreneurs to become low-cost producers, specializing for differentiation and reach more markets due to the adoption of the Internet in their businesses, making ICT a key factor in their improved performance and running the business. Examples of new techniques such as tele-working and e-commerce were cited in this research.

Finally, an important paper (Chowdhury et al 2003) focuses on measuring the effect of ICT on the economic performance of SMEs in three East African countries: Kenya, Tanzania and Uganda. The study uses diffusion of ICT among East African SMEs is both industry and country specific, where industries covered in the analysis include food processing, textile and tourism. In their empirical analysis, they tackle three performance indicators: internal rate of return, labor productivity, and domestic and export market expansion. Data obtained from ICA surveys covers East Africa, especially Kenya and Tanzania. The survey was carried out from November 1999 to May 2000 and includes enterprises from three sectors: food processing, textiles and tourism. The entire sample includes 300 enterprises. The distribution is 150 enterprises from Kenya and Tanzania each, distributed equally among the three sectors. In the selection of enterprises, the survey followed a simple random sampling procedure where the sample enterprises are randomly selected from major commercial corridors in the countries. Findings reveal that investment in ICT has a negative impact on labour productivity and a positive impact on general market expansion. However, such investment does not have any significant impact on enterprises' return, nor does it determine enterprises exporter (non-exporter) status. (Chowdhury et al 2003)

Thus we can conclude that there exists a knowledge gap, and an ambiguous analysis, regarding the relationship between female owned SMEs performance, and the role that ICT is playing in empowering them. ICA surveys were used before by several studies to investigate the performance of SMEs across various regions. However, a new perspective that addresses gender dimension and furthermore how ICT can be a tool or a vehicle used to empower female-owned SMEs, was not previously rigorously researched or examined using the ICA surveys.

4. Research Methodology

Data:

This research uses the World Bank's Enterprise survey or the Investment Climate Assessment Survey (ICA), as the source for data, for the four Arab and emerging countries, namely Egypt (ICA 2008), Jordan (ICA 2006), Morocco (ICA 2007), Algeria (ICA 2007), and Brazil (ICA 2009). The ICA database provides comparable enterprise level data because it uses similar sampling techniques (ES Global sampling methodology). The definition of SMEs is uniform across all sectors in the Investment Climate Assessment (ICA) Survey in all sectors, in which small firms have 5-19 employees, medium –size firms are ones with 20-99 and firms with 100 or more employees are classified as large.

The samples are constructed using a process of stratified random sampling from a national registry of firms, which implies that only registered firms (i.e., formal firms) are included in the sample. Further, the sampling methodology for the survey generates samples that are representative of the manufacturing and service sectors as a whole. The sample of firms in each country is stratified by size, sector and location, using simple random sampling or random stratified sampling. (Bardasi et al 2011). One of the points of strength of the ICA surveys includes identifying the gender of the principal owner of the enterprise, the size of the firm and its age thus far. Another outstanding fact about these investment surveys include is their completion on a regional level. Thus we can compare countries or a group of countries of 2 different regions such as the Arab countries and Brazil. The Enterprise Surveys cover small, medium, and large companies. The surveys are conducted to a representative sample of firms in the non agricultural formal private economy. Uniform methodology of implementation and a core questionnaire are the basis of the Global methodology under which most Enterprise Surveys (ES) have been implemented since 2006. Indicators created from surveys following the ES Global methodology are comparable across countries and survey years. The topics covered in Enterprise Surveys include infrastructure, trade, finance, regulations, taxes and business licensing, corruption, crime and informality, finance, innovation, labor, and perceptions about obstacles to doing business. The qualitative and quantitative data collected through the surveys connect a country's business environment characteristics with firm productivity and performance. (http://www.enterprisesurveys.org).

Services sector in the ICA survey includes the following industries (commercials, information technology, construction and building, tourism services and transportation, restaurants and others). The Brazil survey includes both the manufacturing and the services sector. This is due to the fact that ICT is used by both manufacturing and services sectors in Brazil, which is different than in Arab countries. The manufacturing sector in Brazil (food, textiles, garments, shoes and leather, chemicals, machinery & equipment, auto parts, furniture and other manufacturing) and the services sector (construction, wholesale, retail, hotels and restaurants, transportation and others).

The Enterprise Surveys provide indicators that describe several dimensions of technology use and innovation. ICT indicators shed light on the use of information and communications technologies (ICT) in business transactions. ICT, such as the Internet, is considered an important tool for all firms, especially SMEs. ICT tools should empower enterprises, especially SMEs, so that they can arrive at national and international markets at lower cost. (ICA Report 2012)

The questions that are extracted from the individual level survey will be used for this study to construct the ICT index. These questions are the following:

1. The establishment uses E-mail to communicate with clients or suppliers
2. The establishment uses Website to communicate with clients or suppliers
3. The establishment has high speed internet connection at its premises
4. The establishment uses internet to make purchases
5. The establishment uses internet to deliver services to clients
6. The establishment uses internet to do research and develop ideas on products and services.

The performance of the enterprise is measured using two different indicators, namely the internal rate of return and the labor productivity.

By adhering to similar sampling techniques and questionnaires, these data sources yield comparable enterprise-level data. In the empirical analysis we use cross sectional country level data for selected Arab countries and Brazil. Caveats in this analysis include important differences in cultural and institutional aspects across these regions. (Bardasi et al 2011)

5. Data Analysis:

Preliminary analysis of the data of the four Arab countries: Jordan, Egypt, Morocco and Algeria, reveals the dominance of male entrepreneurs in selected Arab countries under study, compared to Brazil. In the latter, we observe that the female owned SMEs outweigh the male owned SMEs in number.

Figure2: Female and Male owned SMEs in selected Arab countries

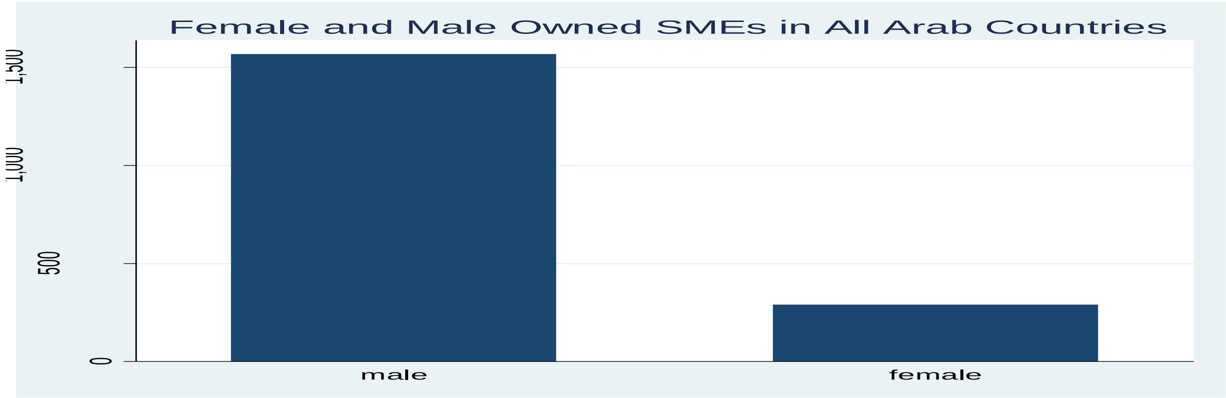
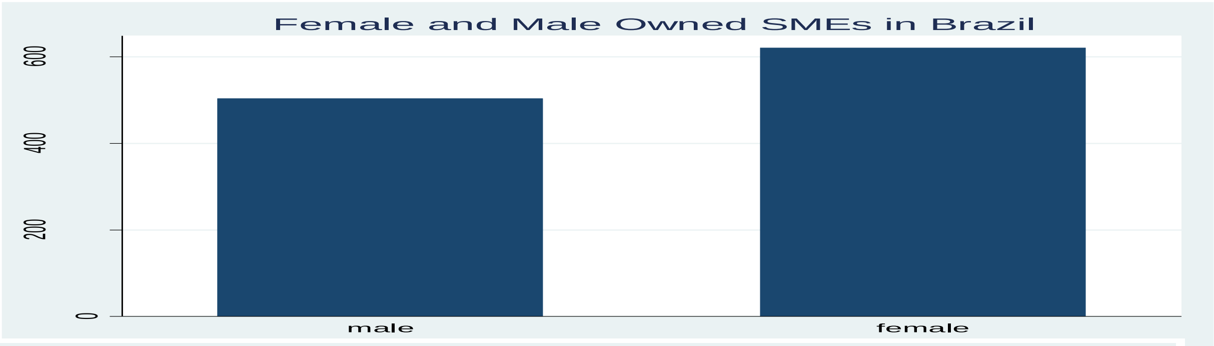
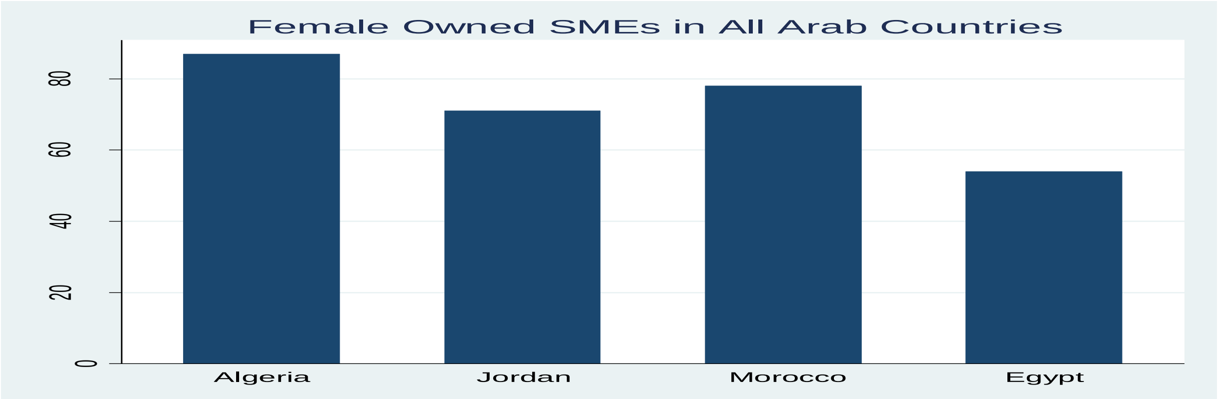


Figure 3: Female and Male - owned SMEs in Brazil





Analyzing the breakdown of the female owned SMEs on a country level; we become aware that they are the highest in Algeria, followed by Morocco, Jordan and finally Egypt. This is an unexpected result, since Egypt is the mostly populated country of the four Arab countries investigated.

Table one: The distribution of SMES owners in Selected Arab Countries and Brazi, based on Gender:

Country	Male	Female
Algeria	483	84
Jordan	364	64
Morocco	477	64
Egypt	134	53
Brazil	486	614

On the other hand in Brazil, we find that female owned SMEs are much more (614 SMEs) compared to male – owned ones (486 SMEs). We also notice that the major type of enterprises in the selected countries is SMEs.

Figure 5: The distribution of Enterprises based on size in the selected Arab countries:

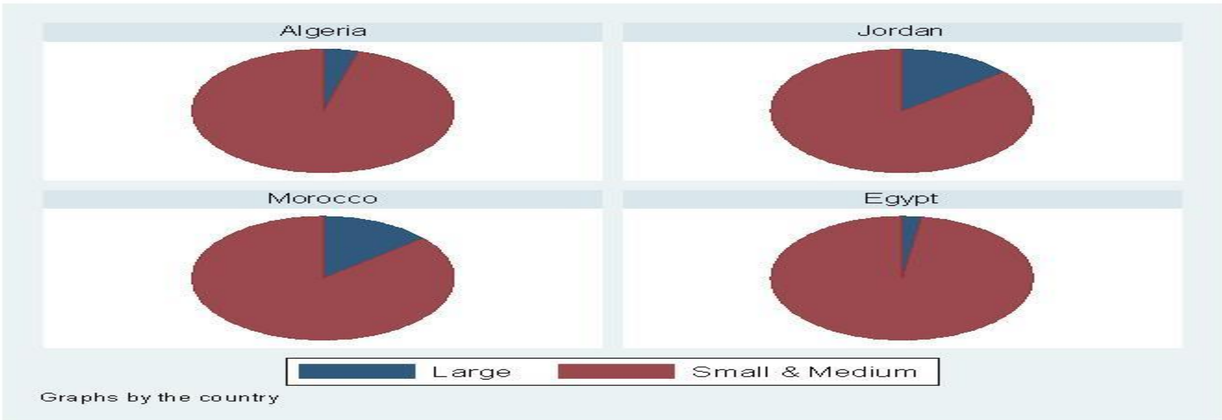
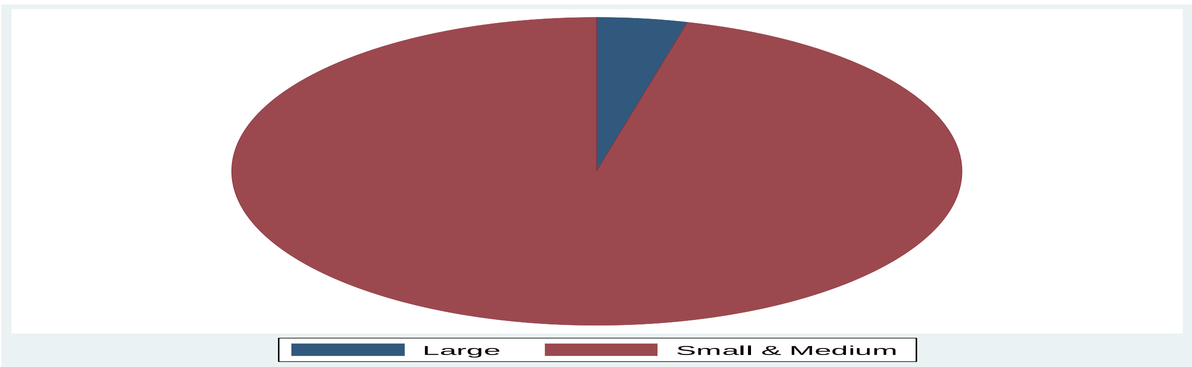


Figure 7: The distribution of type of enterprise based on size:



Source: ICA surveys

Moving to the ICT indicators, Jordan is ranked the first in terms of the usage of high speed internet access, usage of Internet for making purchases, usage of Internet for doing research on new products, and usage of the web to communicate with customers. However, when it comes to using emails to communicate with clients, Morocco ranks number one. (Table 2) Brazil, on the other hand shows different results. Number of females who are connected to the connection in Brazil are higher compared to male. However, in the rest of the ICT indicators, the male are leading the access and use of Internet. (Figure 8)

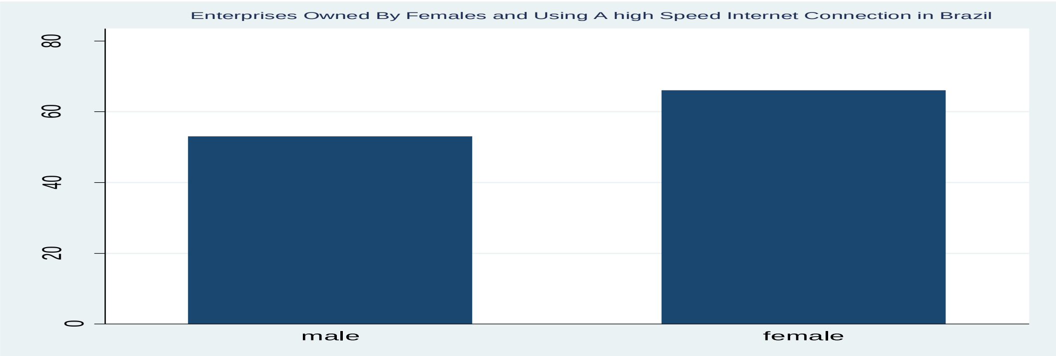
Table two: The ICT indicators in ICA surveys

Country	The establishment uses Website to communicate with clients or suppliers	The establishment uses E-mail to communicate with clients or suppliers	The establishment has high speed internet connection at its premises	The establishment uses internet to make purchases	The establishment uses internet to deliver services to clients	The establishment uses internet to do research and develop ideas on products and services
Algeria	197	372	93	39	44	63
Jordan	229	291	230	175	105	107
Morocco	246	554	57	35	35	39
Egypt	163	163	100	118	118	127
Brazil	1145	1702	180	135	123	152

Source: ICA Surveys

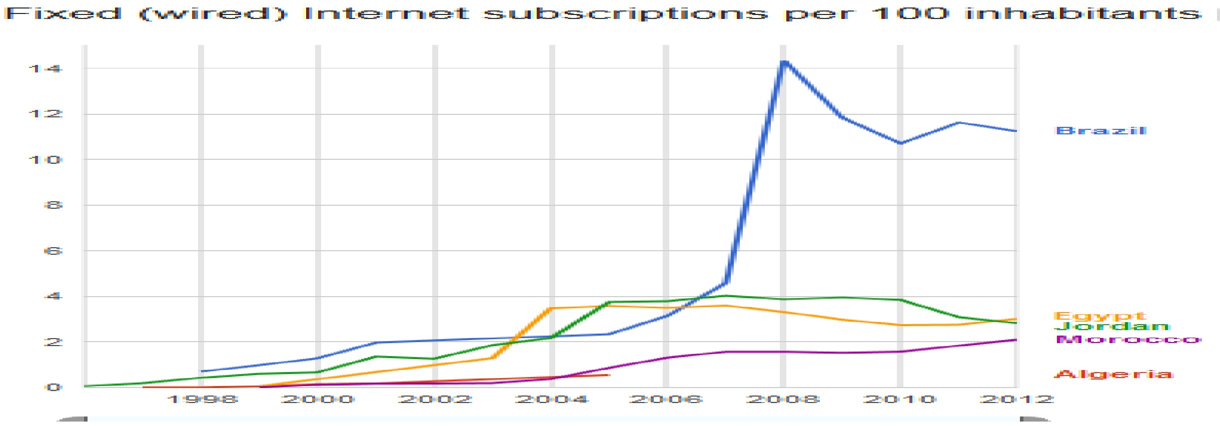
ICT variables statistics in Brazil reveal that the having a website and using email to contact clients is the most techniques of applying the ICT tools on the firm level especially for SMEs in Brazil. The rest of the ICT questions present very moderate usage of ICT, namely, whether the establishment has high speed internet connection at its premise, the establishment uses internet to make purchases, whether the establishment uses internet to deliver services to clients, and finally whether the establishment uses internet to do research and develop ideas on products and services. Hence, we can conclude that male outnumber females owned SMEs in all the ICT variables, except for the usage of high Speed Internet Access.

Figure 8: Enterprises owned by females and using high Speed Internet Access in Brazil



Source: ICA surveys

Figure 9: Fixed Internet subscriptions per 100 inhabitants in selected Arab countries and Brazil:



Source: www. ITU.int

In this respect, it is worth noting that these findings are consistent with the general performance of the ICT sector in the respective Arab countries. According to the ITU data in 2008 and 2009, Jordan was leading the selected Arab countries in terms of Internet penetration rate, while Brazil had a surge in Internet penetration rate, as in the depicted figure (Figure 9). However, as for Morocco, one possible explanation for Morocco leading in email usage as a mean of communication with clients, according to the ICA survey, is maybe due to cultural reasons.

6. The Empirical Model:

The present paper is based on the same research methodology applied by Chowdhury et al 2003 in "Use of ICTs and the Economic Performance of SMEs in East Africa". The new dimension added to the previously mentioned study, is conducting a comparative study between 2 different countries, where lessons learned can be drawn from Brazil's experience. The second additional dimension to the proposed study, is focusing on women entrepreneurs in both countries, thus giving attention to the gender dimension and women empowerment.

An ICT index is constructed using the questions pertaining to the following ICT and R&D services, given that R&D uses ICT quite intensively using the Principle Component Analysis Technique, as discussed previously.

We will measure the impact of using and spending on ICT for female owned firms on the following 2 economic performance indicators for the countries under study:

A: The internal rate of return for female-owned SMEs in Arab countries and Brazil

B: Labor intensity and labor productivity or female-owned SMEs in Arab countries and Brazil

The Internal rate of return is our dependent variable, and it will be measured using the following formula: Revenue minus Variable costs divide by aggregate capital stock. Then, to measure the impact of ICT on female owned enterprises on the IRR the following equation will be estimated using OLS:

$$IRR = \beta_0 \ln A + \beta_1 \ln (K/Y) + \beta_2 \ln (ICT/K) + \beta_3 \ln (EQ/K) + \beta_4 \text{Female Owned SMEs} + \beta_5 \text{ ICT index} + \varepsilon \qquad (1)$$

The first indicator, namely the Internal Rate of Return (IRR), is regressed on aggregate capital intensity, the ratio of ICT capital to total capital and the ratio of non-ICT capital to total capital (Ernst et al 1992), in addition, we include other control variables such as female owned SMEs and ICT index in Arab countries. In Brazil's regression model, we control for using Website to communicate with clients and suppliers variables as a proxy for ICT variables discussed previously, since there are a huge number of missing values in the rest of the ICT variables in Brazil's ICA report. The method of estimation is OLS, and the regression is a level – log Regression.

The second performance indicator for measuring the impact of ICT in female owned SMEs is the Labor intensity variable. In order to measure the impact of ICTs on labor intensity in female-owned enterprises, a similar relationship can be derived. Applying a Cobb-Douglas production function and assuming constant returns to scale and the following equation will be estimated:

$$\ln(L / Y) = \alpha_1 + \alpha_2 \ \ln(K / Y) + \alpha_3 \ln(ICT / K) + \alpha_4 \ln(EQ / K) + \alpha_5 \text{Female Owned SMEs} + \alpha_6 \text{ ICT Index} + \varepsilon \qquad (2)$$

Where the independent variable is (L / Y), which measures labor intensity. Method of estimation is OLS, where the regression is a log-log Regression. In the selected Arab countries, we control for the ICT index, while in the case of Brazil we control for one of the ICT variable, namely the establishment uses Website to communicate with clients or suppliers, for the same reason stated previously.

Prior to running the regression analysis, a correlation matrix of the variables was prepared. Table 1 in appendix shows the means, standard deviations, and Tables 2 and 3 show the correlations of the variables used in subsequent regression for SMEs in the selected Arab countries and Brazil. The pair wise correlations were not large enough to warrant concern about possible multicollinearity problems.

In order to estimate the previous multiple regression models using ordinary least square (OLS), we verified the 5 assumptions of OLS, namely; linearity, constant variance (Homoscadasticity), Multicollinearity, weak exogeneity, and independence of errors then we pooled the data and performed the regressions.

Model 1 captures the impact of female owned SMEs and ICT among other control variables on the profitability of the SMEs i.e. the internal rate of return in the selected Arab countries (Egypt, Jordan, Morocco, and Algeria). The model is overall significant with probability of F statistics equal to zero. For the Arab countries all predictors in the model 1A have a significant economic and statistical impact on IRR except for the Non ICT capital, which is statistically not significant. We notice that the female owned SMEs have a negative association with the internal rate of return or simply their profits are lower compared to male -owned SMEs.

In model 1B, the ICT index is controlled for in the regression in addition to the female –owned SMEs explanatory variable. We notice that the coefficients for the ICT index and the female –owned SMEs are statistically insignificant.

Model 2 captures the impact of female owned SMEs on labor intensity. There were log transformations to most of the variables in addition to the dependent variable as per the literature (Ernst 1992). This is a log –log regression where the estimated parameters are elasticities.

Results reveal that the female owned SMEs have a negative association with the labor intensity. However this association is not statistically significant. The ICT index is statistically significant, and has a positive impact on the labor intensity in the selected Arab countries.

As for Brazil we find in Model (2A), where the dependent variable is the Internal Rate of Return (IRR), and we controlled for female –owned SMEs and having a web site, we find that there is a negative, not statistically significant, association between the IRR and the female owned SMEs, and there is a positive, not statically significant, association between using a website by the SMEs and their IRR.

The labor intensity model reveals that all the controlled variables are statistically significant, except for the female –owned SMEs. However, there exists a negative, statistically significant, association between the labor intensity and having a website to communicate with clients or suppliers.

7. **Analysis of the Results**

In the selected Arab countries, the increase in female owned SMEs is associated with a decrease in Internal Rate of Return. However, when we control for ICT in terms of ICT index constructed using the Principal component analysis technique (PCA), the female owned SMEs becomes statistically insignificant, as well as the ICT index. This implies that IRR is negatively associated with the female owners of the SME, and there is a no association between IRR and the access and use of ICT. In Brazil, however, neither gender nor ICT played any role in the profitability of SMEs.

However, as for the other measure for economic performance, namely the labor intensity, the findings reveal that in the selected Arab countries and in Brazil, the ICT index has a positive, statically significant, association with labor-intensity, while in Brazil the usage of Website has a negative, statistically significant, association with the labor-intensity.

The female ownership of SMEs seemed to impact only the internal Rate of Return in the selected Arab countries and it has a negative association. On the other hand we can conclude that gender plays no role on the economic performance of the SMEs in Brazil.

In order to understand the impact that ICT plays on the labor intensity as a measure for economic performance of SMEs, it is worth mentioning that the impact of ICT on labor intensity, can be positive or negative. As worker productivity, who works in SMEs, increases, fewer workers are needed to produce one unit of output. If the firms do not change the amount of goods they produce, productivity leads to losses in jobs, which is a negative effect of productivity growth and thus on labor intensity. However, if we conclude that there is a positive impact and productivity increases, this is due to the fact that an increase in productivity reduces the cost of production per unit. Thus the price of goods decreases and consumers are able to buy more goods, which also increases the demand for these goods. In addition, firms become more competitive in prices at the international level, which could result in increased exports and global demand for their goods. As a result, firms can sell and produce more, and therefore may end up expanding and hiring more workers (IFC 2013). However, in the long-term, job growth and productivity are positively correlated. Investing in training can help raise firms' profits and labor market outcomes due to positive productivity returns from worker education, especially in the long run. With respect to the control variables, controlling for the enterprise's age did not turn out to be significant in any case, and the results of the analysis were similar to those showed in Table 6. Thus, it was decided to not include it in the models of regression.

8. Conclusion and Policy Recommendations

This empirical study reveals that female-owned SMES have a negative and significant association on the internal rate of return in Arab countries, while gender plays no role in SMEs performance in Brazil. ICT shows a positive association with IRR in the selected Arab countries, while negative association in Brazil. Thus, we can conclude that in Brazil ICT replaces, or substitutes, labor and this results in reducing labor intensity, while in the selected Arab countries, ICT leads to an increase in labor intensity. We thus can conclude that due to various and numerous constraints that women face in Arab countries, such as access to commercial credit, lack of required ICT skills, social norms, among other things, female-owned SMEs tend to be less profitable and less productive.

One of the main hurdles facing the female- owned SMEs include the skill mismatch for the owner as well the employees in the enterprise. It is a serious problem that threatens the potential of SMEs, especially in developing countries. It can be ascribed to the deficiency in the education sector and lagging behind important advances in technology.

Furthermore Entrepreneurs fall into the trap of weakness to recognize the benefits from upgrading and updating their skills according to recent technological advances, such as new technologies in Internet access and mobile communications, usage of smart phones, social media, to promote their businesses. Thus female owned SMEs could help themselves if they invest more in human capital, updating their skills and using new technologies to improve their business performance.

It is worth noting that in Brazil, policy makers made concrete milestones in empowering women in the Brazilian society, in terms of giving mothers financial support conditional on them being responsible for their children’s health and education progress (Bolsa Familia program). This resulted in Brazilian women contributing more to the economic development of their country and having more chances to succeed in their businesses. Only through the existence of the political will, women can be empowered to play a major role in their countries' development process.

Policy makers in Arab countries face the critical responsibility of addressing some policy relevant issues, such as incorporating the women's entrepreneurial dimension in the formation of all SMEs-related policies. This can be done by ensuring that the impact on women's entrepreneurship is taken into account in the design stage of SMEs related policies. It is thus recommended that ICT policies drafted by the designated governmental entities should support the women entrepreneurship in Arab countries. The awareness of gender issues is important when considering strategies to improve the business environment and promote private sector development. Mainstreaming gender and creating greater economic opportunities for women has compelling economic reasons, to the extent that inequalities impose development costs on the society.

Thus, suggested steps to enhance women's participation in economic activities in Arab countries include the following

- Continuing to improve the business environment and giving females in Arab countries more responsibilities in the society as well as financial support. (Drawing from the Brazilian experience).
- Addressing norms, traditions and legal discrimination, encouraging women to join the labor force; improving employment conditions for female workers,
- Increasing women's access to finance, including access to Microcredit.
- Enhancing vocational training for girls and training for female workers.
- Eliminating digital illiteracy among women, and raising awareness of the

merits of incorporating ICTs in the management of SMEs.

- Giving incentives to women entrepreneurs who already adopt new technologies in their businesses, such as tax reductions or cash loans to upgrade their businesses.

References:

Badran, M.F; Hosein, H.F., (2011) “Promoting Economic Growth by Broadband Development in Emerging countries, An Empirical Study”, Telecom World (TW), ITU, retrieved from www.ieeexplore.ieee.org

Badran, MF (2010) “Is ICT Empowering women in Egypt? An Empirical Study” Proceedings of the Research Voices from Africa Workshop, IFIP WG 9.4, Markerere University, Uganda.

“What Determines broadband uptake in emerging countries? An empirical study”, IFIP 9.4. Conference, “Assessing the contribution of computers in achieving development goals”, Dubai, UAE (2009)

Bardasi, E.; Sabarwal, S.; Terrell, K.; (2011), “How do female entrepreneurs perform? Evidence from three developing regions”, Small Business Economics, Springer Science and Business Media, 37:417-441.

Chowdhury, S.K.; Wolf, S. (2003), “ Use of ICT and the Economic Performance of SMEs in East Africa” United Nations University, World Institute for Development Economics Research (WIDER), Discussion Paper No. 2003/06.

Hilbert, M. (2011). Digital gender divide or technologically empowered women in developing countries? A typical case of lies, damned lies, and statistics. Women’s Studies International Forum 34 (6), 479- 489

Heckman, J. (1979). "Sample selection bias as a specification error". Econometrica 47 (1): 153–61

El-Hamidi, Fatma. 2011. How Do Women Entrepreneurs Perform? Empirical Evidence from Egypt. *Alma Laurea Working Papers 23*. Bologna.

Klapper, L.; Parker, S. (2010) “Gender and Business Environment for New Firm Creation” The World Research Observer, Oxford University Press, USA.

Nasr, Sahar (ed). 2010. *Egyptian Women Workers and Entrepreneurs. Maximising Opportunities in the Economic Sphere*. Washington DC: World Bank.

OECD (2004) “ Women's entrepreneurship issues and policies”, 2nd OECD Conference for of Ministers Responsible for Small and Medium sized Enterprises (SMEs), Istanbul, Turkey.

Qiang, C, (2009). Broadband Infrastructure Investment in Stimulus Packages: Relevance for Developing Countries. World Bank, Washington D.C., USA.
Steinmueller, W. (2001). ICTs and the possibilities of leapfrogging by developing Countries. *International Labour Review,* 140(2), 193-210.

Teltscher, S. (2002) “Gender, ICT and Development”, Electronic Commerce and Development Report, UNCTAD, Geneva, Switzerland.

IFC Issue Brief / Women and Business, http://www1.ifc.org/wps/wcm/connect/bb0b20004d0481febbebfff81ee631cc/IFC-issue-Brief_AM12_Women-and-Business.pdf?MOD=AJPERES

Xavier, S.R., Ahmad, S. Z., Nor,L.M., Yosuf, M.(2012), “ Women Entrepreneurs: Making A change From Employment to Small and Medium Business Ownership” International Conference on Small and Medium Enterprises Development with a Theme “Innovation and Sustainability in SME Development, ICSMED 2012, Procedia Economics and Finance , Elsevier, Holland.

Martin, L.M., Wright, L.T., (2005), “No gender in cyberspace? Empowering entrepreneurship and innovation in female –run ICT small firms” International Journal of Entrepreneurial behavior & Research, Vol. 11, No.2, pp.162-178.

Robb, A. M., Watson, J. (2012) “Gender differences in firm performance: Evidence from new ventures in the United States.”, Journal of Business Venturing, 27, pp. 544-558.

Lora, Eduardo; Castellani, Francesca; Solimano, Andres; Kantis, Hugo D.; Federico, Juan S.; Trajtenberg, Luis A.; Velez-Grajales, Viviana; Velez-Grajales, Roberto; Anchorena, Jose; Ronconi, Lucas; Ordenana, Xavier; Arteaga, Elizabeth. 2013. Entrepreneurship in Latin America: step up the social ladder? Latin American Development Forum Series. Washington DC; World Bank Group.

World Bank, Mary Hallward-Driemeier (2013), Enterprising Women, Expanding Economic Opportunities in Africa, African Development Forum.
World Bank & Inter- American Development Bank (2013) " Entrepreneurship in Latin America, A Step Up the Social Ladder" , edited by Eduardo Lora and Francesca Castellani,

Ingrid Verheul, André Van Stel & Roy Thurik (2006) Explaining female and male entrepreneurship at the country level, Entrepreneurship & Regional Development: An International Journal, 18:2, 151-183

World Development Report 2012: Gender Equality and Development

World Bank Report (2011), "Capabilities, opportunities and participation: gender equality and development in the Middle East and North Africa region", World Bank Publication

Sevi, S, Manuel, C., Blackden, M., (2010), "Gender dimensions of investment climate reform: a guide for policy makers and practitioners", World Bank Publications

World Bank, (2001), "Engendering development: through gender equality in rights, resources, and voice", World Bank Publication

IFC, (2013), "IFC Jobs Study, ASSESSING PRIVATE SECTOR CONTRIBUTIONS TO JOB CREATION AND POVERTY REDUCTION", IFC Report, Washington DC, USA.

http://www.internationalentrepreneurship.com

Maier, S., Naier- Reichert, U., (2007) " Empowering Women Through ICT- Based Business Initiatives: An Overview of Best Practices in E-Commerce/E-Retailing Projects", Volume 4, Number 2, Winter 2007, 43–60, ITID Journal, MIT press.

Annex 1:

Table 3: Correlation Matrix:

	IRR	Ln L/ Y	Ln K/Y	Ln ICT /K	Ln Non ICT/K	FSMES	ICT Index
IRR	1.0000						
Ln L/Y	0.1180	1.0000					
Ln K/Y	0.4012	0.5473	1.0000				
Ln ICT/K	-0.1935	0.1630	-0.5031	1.0000			
LN Non ICT /K	0.1698	-0.3329	0.0761	-0.6646	1.0000		
FSMEs	0.0653	-0.0133	0.0479	0.0133	0.0647	1.0000	
ICT Index	0.0688	0.1892	0.1077	0.0643	-0.1084	0.2351	1.0000

Table 4: Descriptive Statistics

Variable	Obs	Mean	Std.Dev.	Min	Max
IRR	929	-40.87816	1251.523	-101540.99	32847.36
Ln K/Y	1085	-3.027191	2.309253	-9.400566	6.327937
Ln ICT/K	976	-2.008448	2.123184	-9.723474	0
Ln Non ICT/K	841	-0.2260372	0.474148	-5.433059	0
Ln L/Y	1757	-12.12837	0.474148	-25.04858	2.690088
FSMES	1754	0.1510832	0.3582321	0	1

Table 5: Dependent variable Internal Rate of Return: (IRR) in female owned SMEs in Selected Arab Countries
Model (1A)
Level –Log Regression

Explanatory Variables	Parameter	t-statistics	P- value
Constant	152.2638***	4.29	0.000
Ln K/y	34.66043***	5.69	0.000
lnICT/K	20.6042***	2.90	0.004
Ln Non ICT /K	25.00185	1.35	0.179
FSMES	-69.28906***	-3.08	0.002

Number of observations: 472
Adj-Rsquared= 10%
Prob>F=0.000
*$p < 0.1$.
**$p < 0.05$.
***$p < 0.01$

Table 6:

Model (1B): Dependent Variable: Internal Rate of Return (IRR) in female –owned SMEs in Selected Arab Countries controlling for ICT Index:

Level-Log Regression

Explanatory Variables	Parameter	t-statistics	P- value
Constant	113.8147***	2.77	0.007
Ln K/y	27.57132***	4.47	0.000
Ln ICT/K	14.8127	1.53	0.129
Ln Non ICT /K	0.1142882***	2.32	0.022
FSMES	2.356242	0.10	0.922
ICT Index	1.73022	0.19	0.849

Number of observations: 111

Adj-R squared: 17%

P>F-stat: 0.000

*$p < 0.1$.

**$p < 0.05$.

***$p < 0.01$

Table7:

Model 2: Dependent ln (Labor intensity)

Log-Log Regression

Explanatory Variables	Parameter	t-statistics	P- value
Constant	-2.887595***	-3.24	0.000
Ln K/y	1.165607***	9.54	0.000
lnICT/K	0.2102365***	5.05	0.000
Ln Non ICT /K	0.2102365	0.29	0.769
FSMES	-0.6092088	-1.50	0.137
ICT Index	0.2741077*	1.70	0.093

Number of observations: 107

Adj-Rsquared= 52%

Prob>F=0.0000

*$p < 0.1$.

**$p < 0.05$.

***$p < 0.01$.

Brazil:

Table 8: Model (2A): Dependent Variable: Internal Rate of Return (IRR) in female –owned SMEs in Selected Brazil controlling for Web:

Explanatory Variables	Parameter	t-statistics	P- value
Constant	3224.431	3.52	0.000
Ln K/y	1163.33***	7.27	0.000
lnICT/K	-45.92594	-0.16	0.874
Ln Non ICT /K	847.5376***	3.55	0.000
FSMES	-730.9831	-1.37	0.172
Web	35.07294	0.06	0.950

Number of observations: 467
Adjusted R-squared: 10%
P>F-stat. =0.0000
*$p < 0.1$.
**$p < 0.05$.
***$p < 0.01$

Table9: Model (2B): Dependent Variable: Labor Intensity (ln L/Y) and controlling for female –owned SMEs and having a website:

Explanatory Variables	Parameter	t-statistics	P- value
Constant	-9.627593***	-41.42	0.0000
Ln K/Y	0.5930852***	14.43	0.0000
lnICT/K	0.1551133**	2.06	0.0400
Ln Non ICT /K	0.2281846***	3.80	0.0000
FSMES	0.2039671	1.50	0.135
Web	-0.6261691***	-4.32	0.0000

Number of observations: 541
Adjusted R-squared: 35%
P>F-stat. =0.0000
*$p < 0.1$.
**$p < 0.05$.
***$p < 0.01$

The Annual Conference of Economic Forum of Entrepreneurship & International Business ISSN: 1925-461X
The 4th Annual Conference of Economic Forum of Entrepreneurship & International Business ISBN: 978-0-9869581-2-0

Ration Card in Egypt: Targeting, Leakage and Cost

Hebatallah Ghoneim, PhD

The German University in Cairo, Egypt

Abstract

Subsidy restructure is at the forefront of Egyptian public policy reform, after series of economic deterioration that has ended with nearly a quarter of the population living in poverty. The government has adopted a number of procedures in order to decrease subsidy cost and inefficiency. One of the major accomplished procedures is introducing smart ration card. This paper is a policy research that illustrates the evolvement that took place for ration card subsidy and evaluates its current performance. The researcher tries to archive the ration card situation in Egypt, then carried a number of interviews to portray current situation and finally held a questionnaire to assess its targeting effect, leakage situation and cost effectiveness.

JEL classification
I38, H71, O23

Keywords
Egypt; Food Subsidy; Ration Card; Social Safety Net

I-Introduction:

"A measure of the greatness of a powerful nation is the character of the life it creates for those who are powerless to make ends meet". —Richard Nixon, August 11, 1969, in a message to the Congress on the reform of the nation's welfare system[7].

In December 2010, Tunisian uprising was the first sparkle in a wave of revolutions that has proliferated in the Arab world from west in Mauritania to east in Bahrain, creating a landmark moment in history. These revolutions took the shape of civil resistance through protests, marches, and media awareness campaigns. It succeeded in the end of dictatorial governments in Tunisia, Egypt, Libya, and Yemen. The revolution in Egypt started on January 25, 2011, when Egyptian youths carried out a series of marches and demonstrations asking for reform and change. "Bread, freedom, social equality" was a slogan raised by protesters confirming that they were not only protesting against a long lasting dictatorial system, but also an economic system that failed to provide basic needs and fair income distribution. In addition, it raised doubts concerning the effectiveness of the World Bank's adjustment program that was applied to bring the society into a freer integrated market system.

Egyptian economy, over its modern history, had been reeling between a centrally planned economy and a free-market economy. In 1805, Muhammad Ali Pasha monopolized all agriculture and manufacturing activities setting the roots for a centrally planned economy. He succeeded in expanding production and developing a robust economy as well as minimizing foreign powers domestically. However, soon after his death, this economy deviated into a capitalistic economy dominated by Muhammad Ali's family, senior state officials, and foreigners. The capitalistic economy resulted in massively unfair income distribution and created an economy monopolized by the elite group. This resulted in 23rd of July revolution that targeted social equality and political reform. The revolution government headed by President Nasser directed the economy toward a centrally planned economy (El-Sherbeiny, 2007). Ever since, Egyptians' dependence on government has been one of the main features of the society, and any attempts to decrease government aid to citizens were met by violence and society rejection, such as the 1977 riots when President Sadat increased the prices of subsidized food. Accordingly, food subsidy is considered a dominant public tool for achieving

[7] Marmor, 2007, p. 77.

political stability and social coherence. Even so, this policy has expanded fiscal burden with macro imbalances, such as large national debt and inflation.

However, during 2000s Egyptian government has taken decisive steps to decrease public spending on food subsidy and clear restructuring activities for the system. One of these actions is to introduce the smart ration card. Computerizing ration subsidy system targets lower leakage, better targeting and thus cost reduction. This paper attempts to provide an explanatory portrayal for the development of ration card. It also target evaluating the current situation of smart ration card through evaluating targeting, leakage and cost effectiveness.

In order to achieve the research aim, it has been necessary to depend on mixed research design through which qualitative and quantitative tools are used. Research methods can be divided into three paths, the first path depends on exploratory approach that overview the development of ration card. Second path, depends on in-depth interviews that have been conducted in person by researcher in an attempt to collect missing data and collect consumer's views. 20 interviews have been conducted with employees distributing food subsidy, ration card holders and non-ration card holders. Interviews have targeted different income levels and different social districts. Third path depends on a questionnaire that is distributed among 300[8] families in an attempt to build a small scale model for reality. Researcher has started by distributing the questionnaire within related community in Cairo and *Mounofia* in person. In order to improve sampling and ensure that each set of people has a chance to be selected; participants in the questionnaire have been selected randomly in supermarkets and public stores. Then Al-Orman NGO in Cairo and Al-Shahid Fekry Youth club in Mounofia, have distributed part of the questionnaire among their beneficial on behalf of the researcher. This is done to improve the chance of randomness and decrease the interference of researcher in picking respondents. It has taken four months to collect survey respond between May 2011 and August 2011.

[8] Depending on Central Limit Theorem, the researcher targeted 300 respondents of the questionnaire. Central Limit Theorem states that when sampling from large population, sample size should be larger than 30 in order to ensure normal distribution of sample where the mean of the sample equals the mean of the population and standard deviation of the sample equals standard deviation of population divided by the square root of sample size (c.f: Diamond and Jefferies, 2001; Healey, 2009; Kvanli *et al.*, 2006, Spatz, 2010; Stephans, 2006). Healey (2009) and Kvanli *et al.* (2006) has added that to ensure normal distribution for even highly skewed population, a sample size of several hundred is recommended.

After introducing the topic and research methodology used to evaluate ration card, next section will explore ration card situation and the later will evaluate it.

II- Portrayal of Ration Card in Egypt:

Ration card is a card giving the right to its holder to receive a number of goods at lower prices and government bare the rest of cost. It has been introduced in 1941 to provide some basic products such as sugar, flour, edible oil, tea and kerosene to workers and limited income employees. Subsidy is not limited only on ration card, but government also subsidize wheat to provide bread at low price. However, ration card has been introduced in Egypt during First World War to support households during crises situation. Then, it has expanded to be part of social contract between government and society.

After 1952 revolution, government has declared that its duty has been to provide all citizens with basic goods. 1952 revolution has been a turning point in Egypt's economic system, since then there have been massive government intervention in all economic conditions (Esmail, 1988). It has been a starting point for moving from a capitalism economic system dependent on world economy to a central planned economy. There has been expansion in ration card holders; nevertheless, ration card at that period served as a quantity card. It has not always provided lower price, but it has targeted mainly to fill shortage in basic products during wartime (c.f: Ahmed *et al*., 2001; Alderman *et al*., 1982).

With the increase in food prices in 1965 and US aid cut, the government has had to restructure ration cards. Four items, which are; kerosene, sugar, edible oil and tea, have been recorded for price subsidy in the ration cards (Alderman *et al*., 1982). Between 1967 and 1973, ration card subsidy has declined as part of government contraction policies due to war conditions; that has resulted in massive military expenses, decreased exports and recessionary domestic conditions (Carr, 1990). However, major expansions in ration cards have been applied starting from 1973 to isolate domestic consumer from international price shocks, besides applying a post-war expansion policy and a support to *Infitah* policy which are activated by law in 1974 (c.f: Scobie ,1988; Harik,1992). Esmail (1988, p.128) has reported that food subsidy in 1973 and 1974 has reached LE 108 million and LE419 million consecutively, which is nearly 3 times increase in only one year.

Ration cards have expanded to include even non-food items such as cloth, cigarettes and soap (c.f: Alderman *et al*., 1982; Ahmed *et al*., 2001). It has been distributed through two main stores; private owned stores known as *tamween* shops and government stores as well as cooperatives known as *gamayya. Tamween* shops are private owned shops that receive subsidized products and distribute it among ration card holders in return of a marginal profit. *Gamayya* are public outlet stores under Alexandria Company for consumer goods such as *Al-ahram* and *Al-Nil* cooperative stores which have used to receive quota of commodities and distribute it among ration card holder. It has been the ration card holder responsibility to register his card in the nearest store to be counted in store quota. Both *tamween* shops and *Gamayya* sell nonsubsidized goods as well. *Gamayya* has represented a cheap shop for public enterprises production and provided imported products such as canned meat. At that period of time, only meat and poultry have been restricted by family size; while subsidized products have been provided with no limit as long as it is available. Meat and poultry have been limited to 1 kg per month for family of one or two members, 2 kg for family of three or four members and three kg for larger families (Alderman *et al*., 1982).

In 1977, food subsidy has become a burden on Egyptian government specially with currency depreciation that even reached 56% deterioration between year 1977- 1979; besides high population growth rate about 2.8% annual, low economic growth rate nearly 4% and desire for investment expansion (Esmail, 1988, p.132). Alderman *et al*. (1982, p.16) estimated net losses from food subsidy as LE 250.2 million in 1976 and LE 330.6 million in 1977. Egyptian government, according to IMF proposal for economic reform, has decreased subsidy on a number of rationed goods such as sugar, cooking oil, tea, flour, rice and cigarettes. This led to riots and violence activities specifically in Cairo and Alexandria (c.f: Adams, 2000; Ahmed *et al*., 2001; Gutner, 1999). President Sadat has had no option but to step back in his decisions and expand food subsidy which has become the main stone for social safety and government legitimacy. Instead government has set a five year plan (1978-1982) for small adjustment in prices with gradual increase in wages (Alderman *et al*.; 1982).

In 1981, ration records have been adjusted and further adjustments have been done in 1994 resulting in the removal of mortalities, emigrants, duplicate registration, those owning more than 10 feddans or LE3000 bank deposit and owners of stock joint venture companies. This has decreased number of recorded families by 300 thousand (c.f: Abdel khalek and Korayem, 2001; Alderman *et al*., 1982). A new ration card has been introduced to segment families by income where less price subsidy is offered, in addition new births are not added (Selim, 2008). Respectively, the government has succeeded in decreasing ration card holders from

99% of the total population in 1970 to 70% in 1998 (c.f: Ahmed *et al*., 2001. p: 9; Gutner, 1999. p: 20). In addition, specific quota and additional quota has been set on rationed products which were mainly sugar, edible oil, rice and tea. In 1996/97, numbers of rationed products have been restricted to only two products sugar and edible oil (c.f: Ahmed *et al.,* 2001; Alderman, 1988). A gradual increase in prices has also been applied; for example, price of sugar increased from 35 piaster in 1977 (Alderman *et al*., p.27) to 50 piaster in 1996/97 for fully subsidized cards and 75 piaster for partially subsidized ones (Ahmed *et al*., 2001, p.27).

In spite of the decrease in ration card holder and creating limits on rationed subsidized products, nearly the whole society has been benefiting from ration subsidized products. It has been possible that anyone would buy subsidized products through *gamayya* without even having a ration card especially before 1990. *Gamayya* did not only distribute ration card quota, but also sold different goods with no quota limit produced by public enterprises at lower prices without requiring membership. There has been no limit on purchase from *gamayya* cooperative, but each cooperative has had a monthly quota of supply which has been usually less than the demand of consumers. Thus, there were usually long queues out of outlets so that the consumers would be able to get subsidized products before it runs out. This method of distributing goods by the willingness to wait is assumed to benefit poor as time opportunity cost for rich is higher. However, this hypothesis is not supported and the rich benefited more as rich have the pleasure of sending their servants or paying tips to sellers in g*amayya* to purchase the quantity they require (Alderman, 1988). *Tamween* shops are different as they only have to distribute specific quota to ration card holders. However, low price of subsidized products and low profit margin have created incentive to sell subsidized products at regular prices (Alderman *et al*., 1982). Other problems have appeared such as smuggling canned meat and soap to Sudan to benefit from the low prices (Esmail, 1988).

In 2000s, Egyptian government has started selling public enterprises as part of Economic reform and structural adjustment program (ERSAP), which has eliminated the role of *gamayya* as public production is eradicated. Ration card has started to be more efficient; as membership for receiving subsidized products became obligatory. In addition, government tried to achieve a self targeted food subsidy system, which means they offered products that are inferiorly packed or with lower quality to differentiate ration products from other regularly sold products. Thus, only those with low income would purchase this low quality product seeking low prices, while higher income would prefer to bear higher cost for better quality.

Moreover, subsidy for all high income products such as meat, fish and poultry are removed and offered products are constrained to basic goods (c.f: Ahmed *et al*.,2001; Gutner, 1999; El-Mala and EL-Azzez,2008)

In 2010, four main products (sugar, cooking oil, rice and tea) have been provided at lower prices according to fixed monthly quota through a smart ration card (c.f: table 6.1). Till 2004 there has been other products sold under ration card such as beans, macaroni, butter and lentils (FAO, 2006). There are two types of cards, one with full subsidy and another with partial subsidy to those working in private sector. However, till 2010 both received the same level of monthly subsidy. The government has succeeded to decrease the expenditure of subsidized ration goods from 1.44 billion LE in 1990/91 to 1.2 billion LE in 2000/01. However, under international increases in prices the government expenditure has increased in 2009/10 to 3.8 billion LE. (c.f: figure 1). In general, the government have tried to downsize its expenses at the same time do not harm the poor families and this required to restructure the food subsidy system. It has initiated an attempt to direct subsidy to those who deserve it. Smart ration card is introduced as initiative to improve the system in order to facilitate administrative activities to deduct non-poor and control leakages.

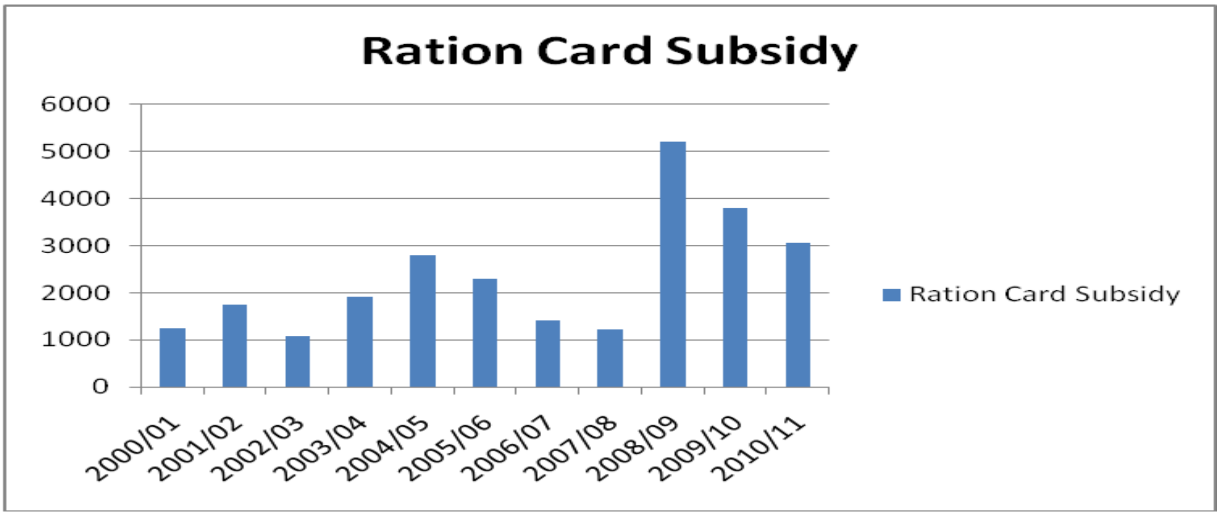


Figure 1: Ration Card Expenditure

Source: CAPMAS (2010) and MOF (2010).

The smart ration cards is first implemented in 2010, it has started with specific governorates; Suez, Mounfia, Port Said, Souhag, Luxor, Zagazig and is first issued in Cairo at June 2010. According to Social Solidarity data, ration card covers 12 million families in November 2010 which is nearly 65% of the whole population in comparison to ten million families in 2004. In general, the percentages of society (benefiting ration subsidy) have been decreasing over time since 1970; which recorded the peak of subsidy expenses (c.f: figure 2).

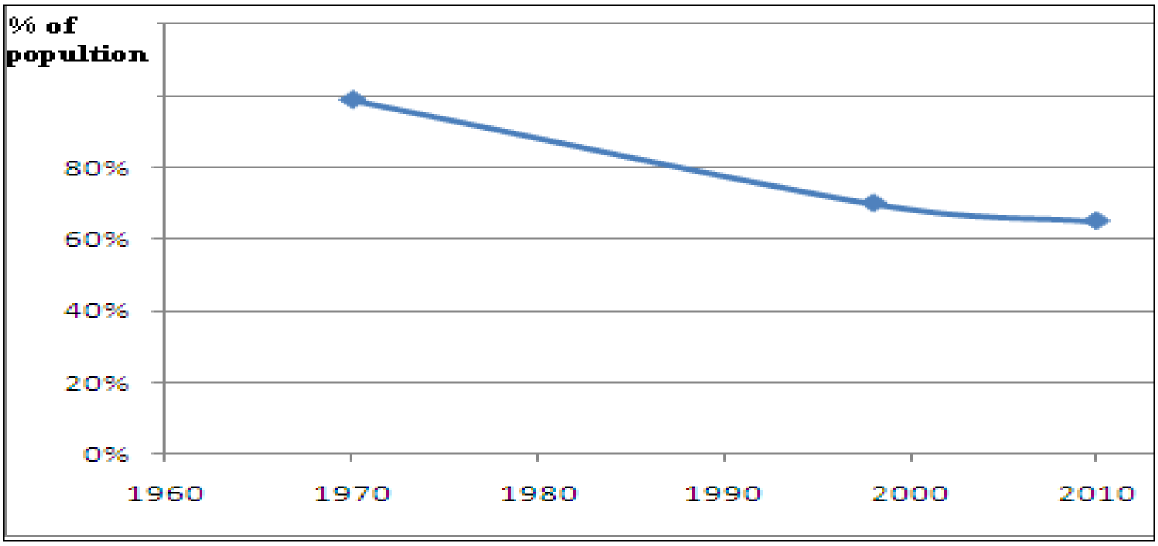


Figure 2: Ration Card Expenditure

Source: Compiled by Author (mentioned in previous section)

According to table (1), based on interviews (c.f: appendix 1) with employees in governmental markets selling subsidized goods and number of ration card holders in different urban districts such as Heliopolis, El-Zatoun, El-Matariya, Ain Shams and El-Marg in Cairo, as well as interviews with households in rural areas in other governorates such as Mounfia and Helwan, shows that the average of subsidy government paid to each family is 75.6LE per family of four members or more (as the quota below is the maximum given) of smart ration card per month.

Table 1: Subsidized Goods through the Smart Ration Card (December 2010):

	Rice	Sugar	Edible Oil	Tea
Market Price [9]	3.33 LE	5.74 LE	8.00 LE	1.27 LE
Subsidized price	1.50 LE	1.25 LE	3 LE	0.65 LE
Quantity per family of 4 (or more)	8 kilo	8 Kilo	4 Liter	8 Packs[10]
Total according to MRKT Price	26.64 LE	45.92 LE	32 LE	10.16
Total according to SUB Price	12 LE	10 LE	12 LE	5.20 LE
Total amount paid by the government	*14.64 LE*	*35.92 LE*	*20 LE*	*5.04 LE*

According to MSIT (Ministry of Supply and Internal Trade, 2013), the ration card is still providing the above subsidized goods at the same price in spite of the increase in market price (c.f: table 2). This resulted in a massive increase in public expenditure in subsidized ration card as reported by ministry of finance budget statement (2013). It is reported that nearly 10.5 billion are spent on ration subsidy in 2012/2013 and nearly 11.5 billion are designated for these expenses for the budget statement 2013/2014. In short current economic and political instability in the country led to accelerate the subsidy expenses.

Table 2: Subsidized Goods according the Smart Ration Card (2012):

	Rice	Sugar	Edible Oil	Tea
Market Price [11]	4.22LE	9.41LE	9.5LE	3.5LE
Subsidized price	1.5LE	1.25LE	3LE	0.65LE
Quantity per family of 4 (or more)	8Kilo	8Kilo	4Liter	8packs
Total according to MRKT Price	33.76 LE	75.28 LE	38 LE	28 LE
Total according to SUB Price	12 LE	10 LE	12 LE	5.2 LE
Total amount paid by the government	*21.76* LE	*65.28* LE	*26* LE	*22.8* LE

From the card holder perspective problems of ration card (reference to ration card interviews: appendix 1) can be summarized in low quality of some products specially tea, shortage in rice, difficulty of issuing one and citizens' unawareness of their own quota, which opens an area of seller's corruption. However, they admit that they cannot complete monthly requirement without it. From the governmental perspective, it is a burden on government budget especially under high fluctuation of prices, but on the other hand it is part of political stability. Next section will go step

9 Market price represents the average of prices in December 2010 according to CAPMAS (2011).

10 The Pack is 40 gram

11 MSIT (2013)

further and analyze the smart ration card according to three scopes targeting, leakage and cost effectiveness.

III- Empirical Evaluation of Targeting, Leakage and Cost-Effectiveness:

1- Targeting:

The first question to evaluate the performance of any public aid program is how adequate the program is (Marmor, 2007). This means how the program contributes in alleviating poverty. For achieving an adequate alleviation of poverty, all targeted group should be reached. The targeted group are usually those who cannot benefit from economic growth; such as orphans, disabled, and those who cannot face economic risk such as poor families (Van de Walle, 1998). Efficient targeting implies the best practice of reaching the poor with the least cost. A perfect targeting situation is achieved when each one under the poverty line receives an aid scheme, which just pushes him on the poverty line. This would require perfect information about individuals' income, needs and status over time; which in turn requires massive administrative cost. Most developing countries, in order to get over administrative cost and bureaucratic problems, are used to depend on universalistic schemes of distributing social transfer; such as cases of providing in-kind transfers for the whole society. This decreases administrative cost and ensures poverty alleviation but with massive public expenditure (c.f: Besely and Kanbur, 1988; Sen 1995).

Universalistic in-kind transfers –subsidy programs- have a broad targeting scope that does not directly reach the poor, i.e. the ones who need it the most. Due to such program pressure on public expenditure, there is a trend to revise aid so that it would have a much narrower targeting scope program. One method is to target a specific income group or a certain geographical area that are at social and economic risk. Another method is to depend on self targeting, through providing inferiorly subsidized products that are selected only by targeted group (Van de Walle, 1998). Self-targeting would usually require lower administrative burden but adds a stigma to the program. This stigma could be humiliating to those receiving the aid on one side, but on the other hand would be an incentive to improve their economic status.

According to MSIT (2013), the income levels that are allowed to issue a ration card has increased from LE1200 or pension LE750 (according to ministry decision No. 84 for year

2009) to LE1500 or pension LE1200 (according to ministry decision No.15 for year 2011). The ration card is allowed to add up to 4 beneficiaries per family. In general, it seems that ration cards are provided to those who live below $2 per day and the change in income limit is related to currency depreciation that occurred after 25th of January revolution.

However, the question of targeting is "does the current scheme of smart ration card resulted in a situation where all those living on less than $2 per day are reached". According to the survey (distributed by researcher), 13.3% of poor families do not have ration cards; neither registered on family card or in the process of issuing one. The Majority of these families claim that it is difficult to issue a ration card, and the minority of them are indifferent to having a ration card because of the bad quality of the subsidized products. Accordingly, it seems that there are still families (majority) that need and willing to have ration card but still do not have one. Thus, not all targeted group is covered but 86.7% are covered either through direct use of ration card or being registered on family card. Middle-income families as well benefit of ration card as nearly 74% of middle-income families in the survey sample have ration card or registered on family card (c.f: table 3).

Table 3: Descriptive Statistics of Families Having Ration Card:

Income level	Have a Ration Card	In Process of Issuing	Registered on Family Card	Total size according to income level
Less than 1500	38	9	12	68
Between 1500-5000	64	5	21	115
More than 5000	14	1	3	58
Total	116	15	36	241

It seems that not only poor depend on ration card but other income groups as well. Therefore, an investigation on whether there is a relation between incomes and owning a ration card or using ration card products is needed. In other words, it is needed to test whether the frequency distribution of using ration card products is consistent with distribution of income. Meaning, whether lower income levels in the sample are more frequent to use ration cards; the lower the income, the higher frequency of depending on ration card products. Respectively, the best tool to be used is Pearson Chi-square test as it tests a null hypothesis stating that the frequency distribution of a certain event observed in a sample is consistent with a particular distribution. To calculate Pearson Chi-square coefficient, a contingency tab (cross tab- table 4) is constructed to display the frequency distribution of owning ration cards in relation to different income levels.

Table 4: Frequency Distribution of having Ration Card in relation to Income level:

Income Level	Criteria	Do you have a ration card?		Total
		No	Yes	
Less than 1500	Count	30	38	68
	% within Less than 1500	44.1%	55.9%	100.0%
Between 1500-5000	Count	51	64	115
	% within Between 1500-5000	44.3%	55.7%	100.0%
More than 5000	Count	44	14	58
	% within More than 5000	75.9%	24.1%	100.0%
Total	Count	125	116	241
	% within whole sample	51.9%	48.1%	100.0%

According to table 4, 48.1% of the sample have ration card where majority are either low income families (less than 1500) or middle income (between 1500 -5000). For families with income less than 1500, 55.9% of them have ration card, while 55.7% of families with income between 1500 -5000 have ration card and only 24.1% of high-income level families have ration card. This implies that the lower the incomes of a family, the higher the frequency of using ration card products. In other words, low income families depends on ration card subsidized products. To test for this concluded relation, Pearson's chi-square coefficient is calculated, and it is highly significant, which support relation availability. Contingency coefficient which tests the relation is measured and is highly significant as well, which support the first hypothesis that low income families depend on ration card products (c.f: table 5).

Table 5: Chi-Square Test and Symmetric measure for Ration Card:

Test	Coefficient value	A Significance
Pearson chi-square	17.616	.000***
Contingency Coefficient	.261	.000***

Checking the frequency of using ration card to higher family size, which implies lower income per individual, gives the same result as above (c.f: appendix 2). Larger size families are more frequent to use ration card. In general, ration card is adequate for low income families, however few of the targeted groups are not reached and much of non-poor use the ration card. This would move us to the second point; which is the leakage.

2- Leakage:

Targeting is concerned with checking whether the risky groups receive the needed aid, while leakage is about how far the non-poor benefit from the aiding program. The larger the number of the non-poor depending on aid program, the larger the fiscal burden and inequality in the society. To ensure efficiency of the program, each individual who has a substantial income for consumption should not receive aid. While, to ensure equity, the government collects taxes from non-poor to aid the poor, not to give it back to non-poor. However, low leakage would require high administrative burden since income data are usually not accurate and often vary over small period of time (Van de Walle, 1998). Self-targeting would be a way to decrease leakage as inferiority would discourage non-poor from demanding subsidized products. Another method of discouraging non-poor is through long queues. Non-poor willingness to wait for receiving an aid would be a natural way to exclude them from public aid. However, non-poor can pay extra cost in terms of bribe to avoid the queue and receive the benefits, on condition that the cost after paying the pricing is still convincing. Thus, this ends up with a situation in which the poor are punished in long queues to receive aid.

According to MSIT (2013), the number of poor families in 2011 has reached 2.7 million families, while near to poverty line are 3.3 million. Thus, ration card should be provided to at least 6 million families. Surprisingly, more than 16 million families have been registered for the benefits of ration card in year 2012. This means that only around 37% of the beneficiaries are the targeted group. Figure

3, shows that in the studied sample 12% of families using ration subsidy are high income families, 55% are middle income families, while 33% of the beneficiaries are from the targeted group with income less than LE1500.

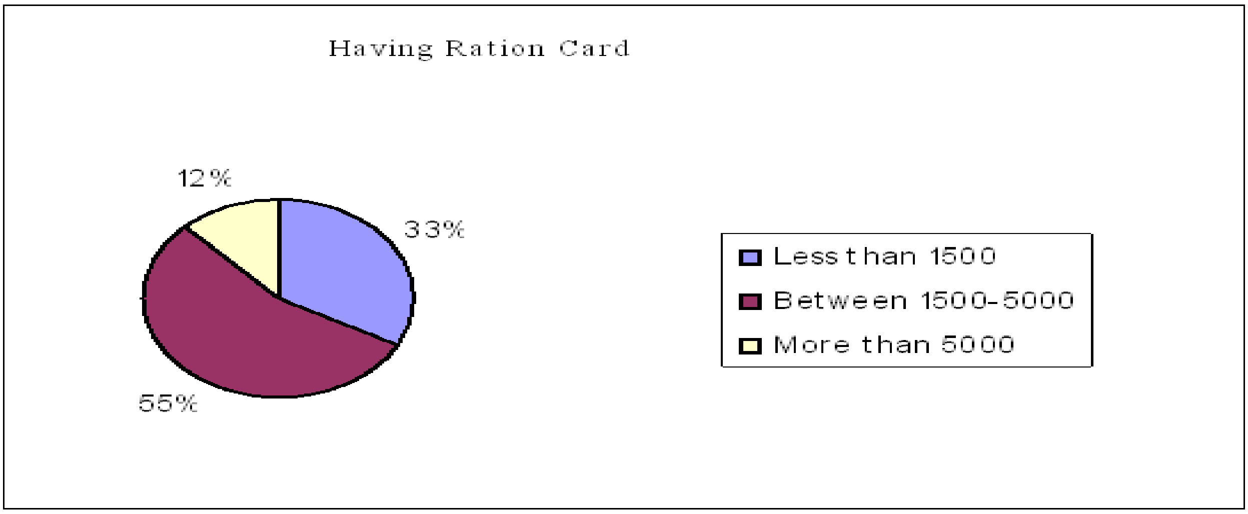


Figure 3: Distribution of Food Subsidy among Different Income Groups:

It seems then that there are leakages to non-poor, and high-income families are also willing to use the food subsidy. However, the question remaining is whether this leakage is decreasing or not. According to survey results, only five of high-income families have ration card and do not have it any more. Three of them have stated that the reason is that "I do not need one" while two returns it to "my social status is higher than requirement set by government." Thus, income status and regulation seems to be the reason behind not having a ration card. However, it is needed to investigate whether self targeting has been achieved to discourage the high income group from using ration card or not.

The question here is: Is there variation of preference between different income groups? Does moving from low income to high income, families become less satisfied with the product? To answer these questions, homogenous preference or decision between different groups need to be tested, and this can be done through ANOVA [12]table.

[12] ANOVA Table is a way to reach a decision concerning relations, through observing variation among more than one sample. ANOVA assist in showing whether the difference in the mean of different samples is due to moving from one situation to another - for example; from low income to high income- or due to chance. If variation in means due to variation in levels, this proves the

ANOVA can be primarily used to test whether there is variation between different income groups' satisfaction for subsidized goods provided through ration card and then post hoc test will be used to test for the pattern of variation. F-test calculated through ANOVA table showed that there is homogenous in means between the three income groups concerning quality and quantity of subsidized products, whereas, there is significant variation as illustrated in table 6 for price in two products rice and sugar.

Table 6: Descriptive Mean and ANOVA Results for Ration Card Satisfaction:

Dependent Variable	Descriptive Mean		ANOVA Results	
	Income Category	Mean	F-test	Sig.
				Families Satisfaction of Quantity
Rice	**Less than 1500**	2.560	0.196	0.822
	Bet. 1500-5000	2.729		
	More than 5000	2.467		
Sugar	**Less than 1500**	2.940	0.723	0.487
	Bet. 1500-5000	3.176		
	More than 5000	2.733		
Oil	**Less than 1500**	2.960	2.038	0.134
	Bet. 1500-5000	3.000		
	More than 5000	2.600		
Tea	**Less than 1500**	2.023	0.221	0.802
	Bet. 1500-5000	2.549		
	More than 5000	2.467		
				Families Satisfaction of Quality
Rice	**Less than 1500**	2.480	0.489	0.614
	Bet. 1500-5000	2.565		
	More than 5000	2.400		
Sugar	**Less than 1500**	3.460	1.299	0.276
	Bet. 1500-5000	3.541		
	More than 5000	3.200		
Oil	**Less than 1500**	3.260	0.681	0.508
	Bet. 1500-5000	2.941		
	More than 5000	3.400		
Tea	**Less than 1500**	1.933	2.523	0.084
	Bet. 1500-5000	2.000		
	More than 5000	1.800		
				Families Satisfaction of Price
Rice	**Less than 1500**	3.600	6.105	0.003*
	Bet. 1500-5000	3.459		
	More than 5000	2.467		
Sugar	**Less than 1500**	3.780	8.175	0.000***
	Bet. 1500-5000	3.635		
	More than 5000	2.533		
Oil	**Less than 1500**	3.720	4.801	0.010
	Bet. 1500-5000	3.553		
	More than 5000	2.733		
Tea	**Less than 1500**	3.233	3.027	0.052
	Bet. 1500-5000	3.253		
	More than 5000	2.400		

relation. ANOVA table calculate variance according to two reasons of variation: change in level and chance or error. Then, F-test is calculated as the ratio of sum square of both sources of variation divided by degree of freedom (Freund *et al*., 1993).

There is significant variation between groups for only rating satisfaction of prices for both rice and sugar offered under ration card subsidy. While for all other cases, whether concerning quantity or quality satisfaction, there is a homogenous decision for different group, for example, all groups have rated quantity of sugar and oil as neutral, quantity of tea as fair, quality of rice as fair, quality of sugar as good and quality of tea as fair. There are other cases that rating satisfaction is not moving in direction with income category (neither positively nor negatively), for example, rating quantity of rice as good by middle-income category and fair by low and high-income category (c.f: table 6). Only for prices, it is noted that the higher the income levels the lower price satisfaction. Post hoc test is carried to identify the patterns of significant f-test, and it shows that significant satisfaction is higher in case of lower-income families .

These results seem to be puzzled, how the three groups are homogenous in their decision concerning quality and quantity while higher-income groups are less satisfied about price. Thrift is a solution for this puzzle, meaning that high-income families who have ration card care, mainly about lowest possible price. Another reason could be that high-income families do not care about price in first place; they consider ration card as citizenship right, and respectively they rate prices as neutral. Low and middle-income families care about price, and this is their main motive behind depending on ration card due to their limited income and view prices as good as low prices enable them to have better economic conditions. In general, according to ANOVA test, it cannot be estimated that self-target is achieved in ration card as there is no variation between different groups. Hence, further administrative actions are needed by the government to exclude non-poor families from using subsidy.

3- Cost-Effectiveness:

Subsidy bill includes direct and indirect cost paid by the government to transfer aid to the needy families. Direct cost is the subsidized amount the government pays in order to provide the good at lower price. While, indirect cost represents the administrative as well as leakage. Cost- Effectiveness of ration card requires comparing the cost paid by the government to transfer aid to targeted group in comparison to gains obtained by needy individuals (Ahmed *et al*., 2001).

In previous section, it has been calculated that a family receives as direct benefits from ration card an amount of LE75.6 for year 2010 and LE135.84 for year 2012. Taking into consideration that nearly 12 million family is registered on ration card for year 2010 and 16.9 family are registered (MSIT, 2013), then the government payment as direct subsidy to individuals is about LE 1 billion for 2010 and LE2.3 billion for year 2012. Subtracting these amounts from the total cost spent on ration card subsidy, then nearly LE8.1 billion and LE4.7 billion are the indirect cost for ration cards for years 2012 and 2010 consecutively (c.f: table 7). Taking in consideration the cost per one ration card (or one family), the government has to pay LE393.08 as an indirect cost to deliver a direct cost of LE75.6 in year 2010 and has to pay LE480.72 as an indirect cost to deliver an amount LE135.84 in year 2012. In general, the direct cost represents 16% of total cost for year 2010 and 22% of total cost for year 2012.

Table 7: Direct Vs Indirect Cost for Ration card:

	2012	2010
Total Direct Subsidy [13]	LE2,291,533,862	LE907,645,586
Total cost	LE10401000000[14]	LE5627000000[15]
Total Indirect Cost[16]	LE8109466138	LE4719354414
Direct cost per family	LE135.84	LE75.6
Indirect cost per family[17]	LE480.7216242	LE393.086463

The high indirect cost in 2010 could be attributed to the fact that the smart ration card was first introduced in 2010. Meaning that, part of the indirect cost would have been used to implement the new system and restricting that took place in the public enterprises to operate the electronic system. This also signifies that taking on further steps in improving the structure of distributing the subsidy would enhance the improvement of distribution of direct vs. indirect cost. Leakages are an important issue and would be inducted within the indirect cost. Restructuring the system should incorporate steps to decrease the leakages and thus decrease not only the direct cost but indirect as well.

[13] Calculated based on table 1 and 2 multiplied by number of families having a ration card according to MIST reports

[14] Ration Card cost according to budget financial statement 2013/2014

[15] Ration card cost according to budget financial statement 2011/2012

[16] Calculated by author based on Total cost – Direct Cost

[17] Calculated by author based on total indirect cost divided by number of families having ration card according to MIST reports

V- Conclusion and Policy Recommendation:

Ration card has been a major instrument for Egyptian social safety net. Egyptian government has been financing subsidy programs as a dominant tool for social safety net programs since the First World War. This trend has expanded during socialist revolution in 1952, reaching its peak in 1980s principally targeting political stability. In 1990s, there has been a turnover in public policy through the ERSAP that is imposed by the twin developmental institutions World Bank and International Monetary Fund. The program has reduced state-owned enterprises and has challenged subsidy affordability, setting the reform of food subsidy at the forefront of the adjustment process. Smart ration card has been introduced in 2010 as a preliminary step for reforming such a sensitive social safety instrument. The belief that smart ration card contributes in better targeting, less leakage and less budget drain, has motivated the researcher to investigate the ration card development and evaluate its current situation.

Based on the small scale model for reality formulated in this paper, through interviews with households and ration public sellers besides 242 respondent to a questionnaire as well as public reports conducted by related ministries; the following can be concluded:

First: Ration card is adequate to assist the poor; it is designed to aid individuals living on less than $2 per day. However, still few of the poor households that are eligible to use ration card do not have one. Reasons for that, returns to ignorance about the required credentials to prove their eligibility or inability to do that. The government has to find routes to reach these people; either through campaigns or specific geographic support. A recommendation for public policy would be to introduce work for food programs. Providing work in exchange of food would only attract risky individuals who face food insecurity and do not have other means to get food. It also would benefit those who have a ration card but the quantities are not enough for them to secure hunger.

Second, in spite of providing inferior products in quality and package, non-poor have the incentive to use ration cards. Majority of those using food subsidies are the middle income families that agree concerning the fact that they cannot complete monthly obligation without ration card subsidy. Thus, ration card have been used not only to support vulnerable individuals but to compensate middle income families for the low wage they receive. It is difficult to exclude middle income group from public aid especially under current economic instability and government contraction role. Middle income will keep depending on food subsidy until a real economic growth manipulates their life and drives them to better economic choices. However, taxpayer will never accept to finance high-income families. Few of high income families still use ration card and administrative steps are needed to exclude them and effectively enforce ration card eligibility criteria.

Third, indirect cost induced is much higher than direct cost indicating inefficiency in public expenditure distribution. However, ration card is assumed to contribute in decreasing the indirect cost since it eliminates opportunities of corruption. Nevertheless, this depends on the ability of the government to create collaboration between all related ministries to subsidy to ensure the least cost of information and goods transaction.

In general, smart ration card is a step towards better social protection policy. However, further administrative steps as well as simultaneous development policies are needed to achieve further reform for the social protection program.

References:

Abd El-Khalek, J. and Korayem, K. (2001). *Fiscal Policy Measures in Egypt: Public Debt and Food Policy*, vol.23 no.1. Cairo, Egypt: The American University in Cairo Press.

Adams, R.Jr. (2000). Self –Targeted Subsidies: The Political and Distributional Impact of the Egyptian Food Subsidy System. *Economic Development and Cultural Change*, vol. 49, no. 1, pp. 115-136.

Ahmed, A.U, Bouis, H.E., Gutner, T., and Löfgren, H. (2001). The Egyptian Food Subsidy System: Structure, Performance, and Options for Reform. Research Report 119. Washington, D.C., United States of America: *International Food Policy Research Institute.*

Alderman, H. (1988). Food Subsidies in Egypt: Benefit Distribution and Nutritional Effects. Pp: 171-182. In Pinstrup-Andersen, P. (eds.). *Food Subsidies in Developing Countries: Costs, benefits, and Policy Options*. Baltimore and London: The Johns Hopkins University Press.

Alderman, H., Braun, J.V.and Sakr,S.A. (1982). Egypt's Subsidy and Rationing System: A Description. Research Report 34. Washington D.C., USA: *International Food Policy Research Institute.*

Besley, T. and Kanbur, R. (1988). Food Subsidies and Poverty Alleviation. *The Economic Journal*, Vol. 98, No. 392, pp. 701-719

CAPMAS (2011). Consumer Price Index December 2010 Bulletin. Cairo, Egypt: *Central Agency for public Mobilization and Statistic.* Retrieved on January 2011, from: http://www.capmas.gov.eg/news.aspx?nid=562

Carr, D.W. *(1990).* The Possibility of Rapid Adjustment to Severe Budget Deficit and other Economic Problems in Egypt. *The Journal of Developing Areas*, vol.24, no.2, pp.225-246.

Diamond, I. and Jefferies, J. (2001). Chapter 8: From Sample to Population. In *Beginning Statistics: An Introduction for Social Scientists*. London, United Kingdom: SAGE Publications Ltd.

Gutner, T. (1999). The Political Economy of Food Subsidy Reform in Egypt. FCND Discussion paper no.77. Washington, D.C., USA: *International Food Policy Research Institute*.

El-Mala, S. and El-Azzezy, M. (2008). *Al-Daam fee Masr: Al-Mashakel we Al-Helol*, Translated: Subsidy in Egypt; Problems and Solutions. Working Paper Series No. 20, p.798-816. The 13th Annual Conference: Management of Subsidy Problem and Social Justice Activities. Cairo, Egypt: Faculty of Commerce, *Ain Shams University*

El-Sherbeiny, A. (2007). *Egyptian Economy between Dependence and Independence.* Cairo, Egypt: El-Shorouk Press.

Esmail, H. (1988). *Al-moshkela Al-masrya Al-Ektsadia*, Translated: The Egyptian Economic Problem. Alexandria, Egypt: Alexandria University.

FAO (2006). The Double Burden of Malnutrition: Case Studies from Six Developing Countries. Food and Nutrition paper 24. *Food and Agriculture Organization of the United Nation*.

Freund, J.E., Williams, F.J and Perles, B.M. (1993). Chapter 14: Decision Making Analysis of Variances. *In Elementary Business Statistics: The Modern Approach.* New Jersey, USA: Prentice –Hall International, INC.

Harik, I. (1992). Subsidization Policies in Egypt: Neither Economic Growth nor Distribution. *International Journal of Middle East Studies*, vol.24, no.3, pp.481-

Healey, J.F. (2009). *Statistics: A Tool for Social Research*, 8th edition. Belmont, USA: Wadsworth Cengage Learning.

Kvanli, A.H., Pavur, R.J. and Keeling, K.B. (2006). Chapter 7: Statistical Inference and Samplimg. In *Concise Managerial Statistics*. Mason, USA: South-Western Thomas Learning.

Marmor, T.R. (2007). *Poverty policy: A Compendium of Cash Transfer Proposals*. New Jersy, USA: Aldine Transaction.

Ministry of Social Solidarity Official Website (2010). Cairo, Egypt: *Ministry of Social Solidarity*. Retrieved June 2010, from: // http://www.mss.gov.eg/MSS/ar-EG/Family_Services/Financial_Aid/

MOF (2013). States'General Budget (2005/2006-2013/2014). Cairo, Egypt: *Ministry of Finance*.

MSIT (2013). Reports and Statistics. Cairo, Egypt: *Ministry of Finance*. Retrieved August 2013, from: // http://www.msit.gov.eg/mss/ar-eg/%D8%A7%D9%84%D8%AA%D9%82%D8%A7%D8%B1%D9%8A%D8%B1.aspx

Scobie, G.M. (1988). Food Subsidies in Egypt: Macroeconomic and Trade Implications.pp.196-205. In Pinstrup-Andersen, P. (eds.). *Food Subsidies in Developing Countries: Costs, benefits, and Policy Options.* Baltimore, London: The Johns Hopkins University Press.

Selim, E. (2008). Evaluating the Egyptian Experience of Subsidy. Working Paper Series No. 21, p.817-894. The 13th Annual Conference: Management of Subsidy Problem and Social Justice Activities. Cairo, Egypt: *Ain Shams University*, Faculty of Commerce.

Sen, A. (1995). The Political Economy of Targeting, In Van de Walle, D. and Nead, K.: Public *Spending and the Poor.* Baltimore and London: John Hopkins University Press.

Spatz, C. (2010). Sample, Sampling Distributions and Confidence Intervals. In Basic Statistics: *Tales of Distribution,* 3rd edition. California, USA: Cengage Learning.

Stephans, L.J. (2006). Chapter 7: Samoling Distribution. *In Schaum's Outline of Theory and Problems of Beginning Statistics*. USA: McGraw-Hill.

Van de Walle, D. (1998). Targeting Revisited. *The World Bank Research Observer*, vol. 13, no. 2, pp. 231–48

Appendix 1: *Collecting Data about Ration Cards*

First: Sample for questions used in Interviews with *gamayya* and *Tamween* shops sellers:

Question
What are the sold products in *gamayya*?
What are the differences between the subsidized and non-subsidized?
How are the subsidized products distributed?
Since when has been the smart card applied?
What is the quota of each individual under smart ration card?
What is the price of each product?
Are the prices fixed or changes from time to another?
What about quantities?
Do you think smart card makes your task easier?
Is it possible during different occasions to receive subsidized goods? Or does more quantity provided due to different occasions such as Ramadan?
Is it possible to replace subsidized product with non-subsidized products and pay the difference?
Do you know what conditions for issuing ration card subsidy are?

Second: Sample for questions used in Interviews with ration card holder.

Question
Do you have smart ration card?
What is your share monthly?
Isn't tea sold as well through ration card?
How much do you pay monthly?
According to my knowledge, it is accepted to get up to 8 sugar packets maximum. How come you get 10?
Since when has been the smart card applied?
When did you first issue ration card?
What do you think of smart ration card system?
Are the prices fixed or changes from time to another?
What about quantities?
Is there any exception in quantities supplied by ration cards on special occasions?
Do you find *gamayya* crowded?
Do you know what conditions for issuing ration card subsidy are?
How can you evaluate quantity and quality provided through ration card?

Third: Sample for questions used in Interviews with non-ration card holder but added on their family card:

Question
Do you have smart ration card?
What is your share monthly?
How much do you pay monthly?
Since when has been the smart card applied?
What do you think of smart ration card system?
Are the prices fixed or changes from time to another?
Do you find *gamayya* crowded?
Do you check for the conditions for issuing ration card subsidy to have a separate ration card?

Fourth: Sample for questions used in Interviews with non-ration card holder:

Question
Do you have smart ration card?
Did you use to have one before?
Do you know what are the goods provided?
Do you have any idea about the level of prices and quality of products?
Do you know what the conditions for issuing ration card subsidy are?
Do you have any idea about goods quality provided through ration card?

Appendix 2: *Sample of Survey Distributed: English Translation*

1. Do you have the smart ration card?

 Yes No

If your answer to question (1) is **Yes** then skip to question (4), if your answer is **No** then proceed to next question:

2. Did you ever have a ration card before?

 Yes No

3. Why you do not have one now?

 In the procedure of issuing one. Low quality of subsidized goods. I don't need one.

 My social situation is better than the requirement set by the government. Difficulty of issuing one.

 Registered on my family's ration card.

If you **do not have ration card or added on your family card** kindly skip to question (7).

4. How do you rate your satisfaction of the subsidized products **quality** under the ration Card?

Commodity	Excellent (5)	Good (4)	Neutral (3)	Fair (2)	Poor (1)
Rice					
Sugar					
Edible oil					
Tea					

5. How do you rate your satisfaction of the subsidized products **quantity** under the ration Card?

Commodity	Excellent (5)	Good (4)	Neutral (3)	Fair (2)	Poor (1)
Rice					
Sugar					
Edible oil					
Tea					

6. How do you rate your satisfaction of the subsidized products **prices** under the ration Card?

Commodity	Excellent (5)	Good (4)	Neutral (3)	Fair (2)	Poor (1)
Rice					
Sugar					
Edible oil					
Tea					

7. Do you buy the 5 piaster *Baladi* Bread?

 Yes No

If your answer to question (7) is **Yes** then skip to question (9), if your answer is **No** then proceed to next question:

8. Why you do not buy 5 piaster *baladi* bread?

 I prefer to buy other kinds of bread (phino bread and white bread).

 Low quality of this bread. Crowded selling stores

If you **do not buy 5 piaster *baladi*** bread, kindly skip to question (10).

9. How do you rate your satisfaction of *Baladi* Bread?

	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)
The price of *baladi* bread is good.					
The quality of the *baladi* bread is good.					
The quality of the *baladi* bread is the same in all public selling stores.					
I buy *baladi* Bread because I like its taste					
I buy *baladi* bread for its low price					
I use *baladi* bread to feed the pets at home.					
There is difficulty to buy *baladi* bread due to the crowded selling stores.					
I am willing to pay extra charge to receive it at home (home delivery of *baladi* bread)					
I am willing to pay higher price for a good quality *baladi* bread.					

10. What is the number of your family members? --------------

11. Choose your family monthly income range?

 Less than 1500 between 1500-5000 More than 5000

Appendix 3: SPSS Package Tables

Table A-Error! No text of specified style in document.**1: Frequency Tables:**

Do you have a ration card?			
	Frequency	Percent	**Valid Percent**
No	125	51.7	**51.7**
Yes	117	48.3	**48.3**
Total	242	100.0	**100.0**
Why you do not have one now?			
In the procedure of issuing one	15	6.2	**12.0**
low quality of subsidized goods	10	4.1	**8.0**
I do not need one	27	11.2	**21.6**
my social situation is better than the requirement set by the government	20	8.3	**16.0**
difficulty of issuing one	17	7.0	**13.6**
registered on family's ration card	36	14.9	**28.8**
Total	125	51.7	**100.0**
How do you rate your satisfaction of subsidized rice quality under ration card?			
Poor	28	11.6	**18.5**
Fair	59	24.4	**39.1**
Neutral	24	9.9	**15.9**
Good	39	16.1	**25.8**
excellent	1	0.4	**0.7**
Total	151	62.4	**100.0**
How do you rate your satisfaction of subsidized sugar quality under ration card?			
Poor	9	3.7	**6.0**
Fair	24	9.9	**15.9**
neutral	14	5.8	**9.3**
Good	95	39.3	**62.9**
excellent	9	3.7	**6.0**
Total	151	62.4	**100.0**
How do you rate your satisfaction of subsidized oil quality under ration card?			
Poor	10	4.1	**6.6**
Fair	43	17.8	**28.5**
neutral	29	12.0	**19.2**
Good	60	24.8	**39.7**
excellent	9	3.7	**6.0**
Total	151	62.4	**100.0**
How do you rate your satisfaction of subsidized tea quality under ration card?			
Poor	67	27.7	**46.2**
Fair	42	17.4	**29.0**
neutral	13	5.4	**9.0**
Good	22	9.1	**15.2**
excellent	1	0.4	**0.7**
Total	145	59.9	**100.0**
How do you rate your satisfaction of subsidized rice quantity under ration card?			
Poor	34	14.0	**22.5**
Fair	42	17.4	**27.8**
neutral	24	9.9	**15.9**
Good	47	19.4	**31.1**
excellent	4	1.7	**2.6**
Total	151	62.4	**100.0**
How do you rate your satisfaction of subsidized sugar quantity under ration card?			
Poor	18	7.4	**11.9**
Fair	36	14.9	**23.8**
neutral	25	10.3	**16.6**
Good	65	26.9	**43.0**
excellent	7	2.9	**4.6**
Total	151	62.4	**100.0**
How do you rate your satisfaction of subsidized sugar quantity under ration card?			
Poor	18	7.4	**11.9**
Fair	36	14.9	**23.8**
neutral	25	10.3	**16.6**
Good	65	26.9	**43.0**
excellent	7	2.9	**4.6**
Total	151	62.4	**100.0**
How do you rate your satisfaction of subsidized oil quantity under ration card?			
Poor	21	8.7	**13.9**
Fair	41	16.9	**27.2**
neutral	25	10.3	**16.6**
Good	52	21.5	**34.4**
excellent	12	5.0	**7.9**
Total	151	62.4	**100.0**
How do you rate your satisfaction of subsidized tea quantity under ration card?			
Poor	49	20.2	**34.8**

Fair	34	14.0	**24.1**
neutral	19	7.9	**13.5**
Good	35	14.5	**24.8**
excellent	4	1.7	**2.8**
Total	141	58.3	**100.0**
How do you rate your satisfaction of the prices of subsidized rice under ration card?			
Poor	5	2.1	**3.3**
Fair	42	17.4	**27.8**
neutral	18	7.4	**11.9**
Good	60	24.8	**39.7**
excellent	26	10.7	**17.2**
Total	151	62.4	**100.0**
How do you rate your satisfaction of the prices of subsidized sugar under ration card?			
Poor	1	0.4	**0.7**
Fair	38	15.7	**25.2**
neutral	22	9.1	**14.6**
Good	55	22.7	**36.4**
excellent	35	14.5	**23.2**
Total	151	62.4	**100.0**
How do you rate your satisfaction of the prices of subsidized oil under ration card?			
Poor	3	1.2	**2.0**
Fair	34	14.0	**22.5**
neutral	28	11.6	**18.5**
Good	54	22.3	**35.8**
excellent	32	13.2	**21.2**
Total	151	62.4	**100.0**
How do you rate your satisfaction of the prices of subsidized tea under ration card?			
Poor	19	7.9	**13.4**
Fair	31	12.8	**21.8**
neutral	23	9.5	**16.2**
Good	49	20.2	**34.5**
excellent	20	8.3	**14.1**
Total	142	58.7	**100.0**
What is the size of your family?			
<=3	72	29.8	**29.8**
4-6	146	60.3	**60.3**
7+	24	9.9	**9.9**
Total	242	100.0	**100.0**
Choose your family monthly income range?			
less than 1500	68	28.1	**28.2**
between 1500-5000	115	47.5	**47.7**
more than 5000	58	24.0	**24.1**
Total	241	99.6	**100.0**

Table Error! No text of specified style in document.**A-2: Descriptive Statistics- Ration Card :**

	Cv	Mean	Std. Deviation
How do you rate your satisfaction of subsidized rice quality under ration card?	43.37	2.5099	**1.08853**
How do you rate your satisfaction of subsidized sugar quality under ration card?	29.54	3.4702	**1.02507**
How do you rate your satisfaction of subsidized oil quality under ration card?	35.10	3.0993	**1.08784**
How do you rate your satisfaction of subsidized tea quality under ration card?	56.75	1.9517	**1.10762**
How do you rate your satisfaction of subsidized rice quantity under ration card?	46.05	2.6358	**1.21372**
How do you rate your satisfaction of subsidized sugar quantity under ration card?	37.97	3.0464	**1.15665**
How do you rate your satisfaction of subsidized oil quantity under ration card?	41.44	2.9536	**1.22386**
How do you rate your satisfaction of subsidized tea quantity under ration card?	53.50	2.3688	**1.26723**
How do you rate your satisfaction of the prices of subsidized rice under ration card?	34.17	3.3974	**1.16092**
How do you rate your satisfaction of the prices of subsidized sugar under ration card?	31.52	3.5629	**1.12295**
How do you rate your satisfaction of the prices of subsidized oil under ration card?	31.81	3.5166	**1.11866**
How do you rate your satisfaction of the prices of subsidized tea under ration card?	40.94	3.1408	**1.28599**

Table A- 3: Reliability Test Variables:

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
How do you rate your satisfaction of subsidized rice quantity under ration card?	8.2837	9.148	0.799	**0.771**
How do you rate your satisfaction of subsidized sugar quantity under ration card?	7.8298	10.357	0.637	**0.839**
How do you rate your satisfaction of subsidized oil quantity under ration card?	8.0000	9.629	0.722	**0.805**
How do you rate your satisfaction of subsidized tea quantity under ration card?	8.5035	9.852	0.637	**0.841**
How do you rate your satisfaction of the prices of subsidized rice under ration card?	10.1620	10.307	0.916	**0.879**
How do you rate your satisfaction of the prices of subsidized sugar under ration card?	9.9930	10.702	0.878	**0.892**
How do you rate your satisfaction of the prices of subsidized oil under ration card?	10.0423	11.005	0.832	**0.907**
How do you rate your satisfaction of the prices of subsidized tea under ration card?	10.3873	10.849	0.720	**0.947**
How do you rate your satisfaction of subsidized rice quality under ration card?	32.6978	72.560	0.496	**0.873**
How do you rate your satisfaction of subsidized sugar quality under ration card?	31.7698	73.918	0.461	**0.875**
How do you rate your satisfaction of subsidized oil quality under ration card?	32.1295	73.215	0.456	**0.875**
How do you rate your satisfaction of subsidized tea quality under ration card?	33.2014	73.626	0.425	**0.877**

TableA-4: Crosstab- Family monthly income range * Having a ration card?:

			Do you have a ration card?	
			no	yes
Choose your family monthly income range?	less than 1500	Count	30	**38**
		% within Choose your family monthly income range?	44.1%	**55.9%**
	between 1500-5000	Count	51	**64**
		% within Choose your family monthly income range?	44.3%	**55.7%**
	more than 5000	Count	44	**14**
		% within Choose your family monthly income range?	75.9%	**24.1%**
Total		Count	125	**116**
		% within Choose your family monthly income range?	51.9%	**48.1%**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	17.616(a)	2	**0.000**

Table A-5: Q10_1 * Do you have a ration card?

			Do you have ration card?	
			no	yes
Family size	<3	Count	49	**23**
		% within family size	68.1%	**31.9%**
	3-6	Count	73	**73**
		% within family size	50.0%	**50.0%**
	6+	Count	3	**21**
		% within family size	12.5%	**87.5%**
Total		Count	125	**117**
		% within family size	51.7%	**48.3%**

Chi-Square Tests

		df	Asymp. Sig. (2-sided)
Pearson Chi-Square	22.649(a)	2	**0.000**

Table A-6: Family monthly income range? * Why you do not have one now?

			In the procedure of issuing one	low quality of subsidized goods	I do not need one	my social situation is better than the requirement set by the GOV	difficulty of issuing one	registered on family's ration card	Total
Choose your family monthly income range	less than 1500	Count	9	2	0	0	7	12	**30**
		% within Choose your family monthly income range?	30.0%	6.7%	0.0%	0.0%	23.3%	40.0%	**100.0%**
		% within Why you do not have one now?	60.0%	20.0%	0.0%	0.0%	41.2%	33.3%	**24.0%**
		% of Total	7.2%	1.6%	0.0%	0.0%	5.6%	9.6%	**24.0%**
	between 1500-5000	Count	5	5	7	4	9	21	**51**
		% within Choose your family monthly income range?	9.8%	9.8%	13.7%	7.8%	17.6%	41.2%	**100.0%**
		% within Why you do not have one now?	33.3%	50.0%	25.9%	20.0%	52.9%	58.3%	**40.8%**
		% of Total	4.0%	4.0%	5.6%	3.2%	7.2%	16.8%	**40.8%**
	more than 5000	Count	1	3	20	16	1	3	**44**
		% within Choose your family monthly income range?	2.3%	6.8%	45.5%	36.4%	2.3%	6.8%	**100.0%**
		% within Why you do not have one now?	6.7%	30.0%	74.1%	80.0%	5.9%	8.3%	**35.2%**
		% of Total	0.8%	2.4%	16.0%	12.8%	0.8%	2.4%	**35.2%**
Total		Count	15	10	27	20	17	36	**125**
		% within Choose your family monthly income range?	12.0%	8.0%	21.6%	16.0%	13.6%	28.8%	**100.0%**
		% within Why you do not have one now?	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	**100.0%**
		% of Total	12.0%	8.0%	21.6%	16.0%	13.6%	28.8%	**100.0%**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	68.242(a)	10	**0.000**

The Annual Conference of Economic Forum of Entrepreneurship & International Business ISSN: 1925-461X
The 4th Annual Conference of Economic Forum of Entrepreneurship & International Business ISBN: 978-0-9869581-2-0

The Effect of Compliance to Mandatory Disclosure on the Extent of Voluntary Disclosure: The Case of Jordan

---

Dr. Bilal Fayiz Omar

University of Petra

Jordan

Dr. Nidal Zalloum

Al-Balqa Sciences University

Jordan

Abstract: This paper shed the light on the effect of compliance to mandatory disclosure requirements on the extent of voluntary disclosure for Jordanian companies listed in Amman Stock Exchange (ASE) for the period 2008-2012. The mandatory disclosure is measured by constructing an index covering all mandatory items. The Securities Law for the year 2002 determines two sources for mandatory items: Directives of Disclosure and Auditing and Accounting Standards (DDAAS) and International Financial reporting Standards (IFRSs). For voluntary items, a review of disclosure literature and a pilot study will be conducted in order to indicate the voluntary items for Jordanian companies. Such study will have a significant implication for regulators, that the flow of information in the capital market should consider the interaction among all different channels of information (i.e. mandatory and voluntary disclosures). In addition, the policy makers will have adequate knowledge to design the disclosure regulations in light of their influence on the level of disclosure for other sources of information (i.e. voluntary disclosure). Exploring such an interaction will provide an implication for researchers that mandatory and voluntary disclosures are not separated elements and researchers should take into consideration the relationship between them.

Keywords: Mandatory Disclosure, Voluntary Disclosure, Amman Stock Exchange, International Financial Reporting Standards (IFRSs)

1. Introduction

This study overviews the compliance to mandatory disclosure (MD) requirements in a developing country like Jordan. In addition, it discusses the relationship between MD and voluntary disclosure (VD).

The issue of MD and VD has become significant in the literature in both developed and developing countries (Robertson et.al, 2012:380). Disclosure is a complex mechanism, which could be interpreted differently (Adina and Ion, 2008:1408). Firms could disclose information to enhance the efficiency of its production, and to comply with regulations and social values (Adina and Ion, 2008:1408). Thus,

> *"Managers should carefully plan their disclosure strategy as the benefits include improved reputation of the company in the market, less political and regulation intervention and enhanced stock liquidity" (Popova et.al, 2013:1).*

Moreover, Al-Akra et.al (2010:170) argued that regulations could be used as an enforcement tool for compliance. They (2010:171) reported that limited studies tested the compliance of MD in developing countries. Hence, a study on the effect of regulations on disclosure in a Middle East country like Jordan could enhance our understanding about the factors, which influence disclosure practices in these countries (Al-Akra et.al, 2010:170).

Furthermore, the interaction between MD and VD should be taken into consideration, when exploring the disclosure behavior for the firm (Omar and Simon, 2011:167). Einhorn (2005:594) argued that most of the studies has explored the VD, as the only available disclosure tool, and has ignored the MD. However, MD could affect the content of VD and could enhance the firm's disclosure strategies (Einhorn, 2005:594)).

2. Theoretical Background

2.1 Mandatory Disclosure (MD)

MD is governed by regulations (i.e. Company's Act, Stock Exchange Requirements), and it contains all information, which the company should comply with such regulations (Popova et.al, 2013:2). El-Gazzar and Fornaro (2012:74) discussed that absence of regulations could increase the tendency for disclosing unfavorable information. Therefore, *"The aim of mandatory disclosure is to satisfy the users' information needs, ensuring the production quality control through the laws and standards' observance" (Adina and Ion, 2008:1409).*

Moreover, regulations could be used as an optimal mechanism to monitor compliance and non-compliance of MD requirements (Al-Akra et.al, 2010:170). "Companies do not comply with mandatory requirements unless stringent regulation is in place" (Al-Akra et.al, 2010:170). However, the presence of such regulations does not guarantee compliance (Tsalavoutas, 2011:390). Indeed, the high degree of non-compliance may lead to more governmental intervention in the accounting regulatory process, specifically with compliance to accounting rules (Taplin et.al, 2002:175). Accordingly, the adoption of International Financial Reporting Standards (IFRS)[18] is considered one of the most significant compliance to regulations in the era of accounting (Juhmani, 2012:67). IFRS is an accounting standards adopted by the International Accounting Standards Board (IASB). The benefit of adopting IFRS is to enhance the disclosure quality and to strengthen the stock market consistency, reliability and diversity (Roudaki, 2011:39). In addition, Horton (2013:388) stated that adoption IFRSs could facilitate the comparability among companies in different countries. It could also enhance the reporting transparency, decrease the information costs, reduce the information asymmetry and increase the liquidity and efficiency of the market.

The role of IASB is to formulate the IFRS, but it does not have the authority to ensure the compliance in the countries (Juhmani, 2012:67). "The IASB relies on national regulatory bodies to monitor the implementation and consistent application" (Juhmani, 2012:67).

However, companies could have reasons for non-compliance to MD requirements. (Al-Mutawaa and Hewaidy, 2010:33). For example, companies may not disseminate sensitive information that may affect its position among other companies.

"In some cases, management has incentives to suppress unfavorable information to withhold adverse information and to undertake preemptive buyouts of its own firm" (Al-Mutawaa and Hewaidy, 2010:33).

Therefore, VD could be employed as an appropriate tool for reporting beside MD.

[18] Many standards of IFRS are known by the older name of International Accounting Standards (IAS).

2.2 Voluntary Disclosure (VD)

VD is the disclosure, which made by companies in excess of MD (Qu, et.al, 2012:31). VD aims to explain the companies' strategies to investors, to enhance the fluidity of capital market, to guarantee more effective capitals' allocation, and to decrease the capital costs (Tian and Chen, 2009:55).

MD may not be effective because adherence to the regulations is limited or the regulations themselves are vague and difficult to interpret (Omar and Simon, 2011:167). In such cases, VD could be used to compensate the deficiencies in MD (Omar and Simon, 2011:167). Attention should be drawn, to the fact that decision to disclose additional information should be made under costs and benefits framework (Al-Htaybat and Napier, 2006:18). Managers will assess the costs and benefits of any decision before disclosing and will provide voluntary information, when the benefits of the information exceeds the direct and indirect costs (Al-Htaybat and Napier, 2006:18).

Moreover, Hossain and Hammami (2009:256) mentioned four motives for VD:

1- Managers have the responsibility to achieve specific targets in the firm.
2- Managers tend to enhance their company's market share by disclosing information about its performance.
3- Managers may provide VD to reduce cost of litigation, when MD is inadequate.
4- Managers may employ VD to show that they are able to respond quickly to changes in firm's economic environment.

Furthermore, different theories were used to explain the VD (i.e. agency theory, market-signaling theory, capital need theory). According to agency theory, managers will disclose information voluntarily in order to decrease monitoring costs, which arises because of information asymmetry (Omar and Simon, 2011:167; El-Gazzar and Franco, 2012:74).

Based on market signaling theory, VD could be employed to distinguish the firms' position in the market (Omar and Simon, 2011; 167). In addition, El-Gazzar and Franco (2012:74) argued that managers are encouraged to disclose additional information to differentiate their companies from unsuccessful ones

Capital need theory states that firms provide VD when they raise capital in the market (Omar and Simon, 2011:167). Thus, information credibility could be enhanced in the market and cost of equity capital will be decreased (Omar and Simon, 2011:167).

"It is asserted that voluntary disclosure reduces firms' cost of capital and improves transparency by reducing information asymmetry and investors react to information voluntarily disclosed to the stock market, meaning voluntary disclosure is value-relevant to investors' decision-making" (Qu et.al, 2012:31).

2.3 The Association and Interaction between MD and VD

The relationship between MD and VD has been investigated in previous studies (i.e. Dye, 1985; Dye, 1986; Naser and Nuseibeh, 2003; Al-Razeen and Karbhari, 2004; Einhorn, 2005; Broberg et. al, 2010; Robertson et. al, 2012). However, "there is no clear association between these two concepts" (Popova et. al, 2013).

Broberg et.al (2010:352) argued that capital markets influence the extent and content of firms' disclosure. However, there is a trade-off between the benefits and costs of increased disclosure. "The extent and content of information in disclosures is also affected by existing legislation" (Broberg, et.al, 2010:352). In addition, Einhorn (2005:594) discussed that MD could affect VD and could play a significant role on determining its strategies.

Dye (1985:546; 1986:353) argued in modeling the effect of MD requirements on VD. This effect depends whether MD and VD are substitutes or complements. If both of them are substitutes, the increase of MD requirements will decrease the VD. Whereas, if both of them are complements, the increase of MD requirements will increase the VD. "Thus, mandatory disclosure affect the voluntary disclosure of complementary information very differently than they affect the voluntary disclosure of substitute information" (Bagnoli and Watts, 2007:887).

Naser and Nuseibeh (2003:46) tested the relationship among three types of disclosure: MD, VD related to MD (detailed disclosure of MD), and VD. They (2003:46) discovered a positive relationship between MD and VD related to MD. This result could support Dye's (1985, 1986) perspective that MD and VD are complements. On the other hand, Naser and Nuseibeh (2003:60) found no relationship between VD and the other two types of disclosure. They explain such a result by sources of information, which form each type of disclosure. MD and VD related to MD disclosures are taken from financial statements and notes to the accounts, while VD disclosures are derived from the directors' report.

"A relationship between these statements is unlikely to exist, since each part of the annual report is prepared by different parties, where each party attempts to signal a different message to the external users of the report" (Naser and Nuseibeh, 2003:60).

Moreover, a study by Al-Razeen and Karbhari (2004:358) revealed similar results to Naser and Nuseibeh's (2003) study. Indeed, they found that there is no clear pattern of association between MD and VD. Thus, it could be noted that there is a low-coordination between board of directors and the management in preparing the annual reports. The study (2004:358) concluded that most of VD items were found in the directors' report, whereas, the other types of disclosures (MD and VD related to MD) items were found in the financial statements and the notes. Furthermore, the study (2004:360) found that investors are advised not to consider that the firms that are better in disclosing MD are also the firms that disclose more voluntary information.

Einhorn (2005:612) argued that most of existing studies do not take into consideration the interaction between MD and VD. He (2005:594) analyzed how MD requirements affect discretionary disclosure strategies of the firm. He found that the likelihood of providing VD by firms is independent on the MD contents. In addition, there is a nonmonotic relationship between the likelihood of VD and the information quality of MD. Moreover, Einhorn (2005:613) concluded that there is a negative relationship between VD and the discretion of MD, and there is a positive relationship between VD and the scope of disclosure requirements. Einhorn (2005:613) commented on his results as follows:

> *"In particular, firms' strategies for providing voluntary disclosure cannot be studies in isolation without considering the impact of their mandatory disclosures. Correspondingly, the value of mandatory disclosure requirements cannot be properly assessed without an understanding of what, if any, voluntary disclosures might be made in addition to the mandatory disclosure".*

Broberg et.al (2010:358) tested the relationship between the increased MD and VD content. The results revealed that there is a positive association between increased MD and VD content. In particular, after introducing IAS, the companies disclosed more voluntary information about share related information (Broberg et. al, 2010:363).

A recent study by Robertson et.al (2012:382), explored the association between VD related and VD unrelated information on MD. They (2012:386) found that VD related information is positively associated with MD, while VD unrelated information is negatively associated. The findings of this study imply patterns for managers, which enable them to develop disclosure policies (Robertson et. al, 2012:386). "Our results influence not only the content and delivery of disclosure activity, but also how disclosure is perceived by various stakeholders, both within and beyond the firm"(Robertson et. al, 2012:386).

2.4 Objectives of the Study

The study has two main objectives:

1- Exploring the compliance to MD requirements for Jordanian companies listed in Amman Stock Exchange (ASE).

2- Testing the effect of compliance to MD requirements on the level of VD.

3. Methodology

3.1 Sample of the Study

The sample contains of all annual reports for Jordanian companies listed in ASE for the period 2008-2012. The sample contains of two major sectors: services and industrial, which are divided into sub sectors as shown in table 3.1.1 [19]

Table 3.1.1: Sample of the study

Major sector	Sub-sectors
Services sector	Health care, education, energy, transportation, tourism, and communication companies.
Industrial sector	Mining and extraction, engineering and construction, food and beverage, tobacco, textiles, leather and clothing, ceramics and electrical companies

The financial sector is excluded, since its companies are subject to separate disclosure requirements. Omar and Simon (2011:174) argued that many studies (i.e. Naser and Nuseibeh, 2003; Al-Akra et.al, 2010; Broberg et.al, 2010; Qu et.al, 2012; Al-Akra and Hutchinson, 2013; Popova et.al, 2013) excluded financial companies because of specific requirements and consequent comparability problems.

[2] Source: Amman Stock Exchange: www.ase.com.jo/en/exchange-news-2006 [Access: 12/10/2013]

3.2. Construction of the Disclosure Indices

Financial disclosure is a complex concept that cannot be measured directly. The disclosure index is an appropriate tool to explore the extent (quantity) and the nature (quality) of disclosure. Martson and Shrives (1991:195) stated that the disclosure index has a various functions and purposes. It could be used to determine the extent of disclosure among different companies. In addition, it could be used to show the compliance with regulations, or it could be employed to measure the level of VD.

In this study, three disclosure indices are constructed:

1- Index of MD
2- Index of partial compliance to MD
3- Index of VD

For MD index items, the regulations in Jordan are the main sources of information. In specific, The Securities Law for the year 2002 requires all companies to fully comply with two enactments: Directives of Disclosure and Auditing and Accounting Standards (DDAAS), and International Financial Reporting Standards (IFRS). In addition, the 2002 Securities Law has changed the voluntary compliance with regulations (i.e. IFRS) to mandatory compliance (Al-Akra et.al, 2010:174). "Therefore, this law is expected to enhance compliance with IFRS" (Al-Akra et.al, 2010:174). Moreover, this law imposes fines, suspends trading from the market or delists issuers, when non-compliance is occurred among companies (Al-Akra and Hutchinson, 2013:102).

In regards index for partial MD, it affects the quality of compliance to MD items. The number of MD items varies considerably. For example, IAS1, Presentation of financial statements, contains large number of items, while IAS2, Inventories, contains few items. Thus, standards, which include many items (e.g.IAS1), are not treated equally with those, which include fewer items (e.g.IAS2). This procedure is used in previous studies such as: Al-Razeen and Karbhari, 2004; Tsalavoutas, 2011; and Robertson et.al, 2012.

Partial MD index is expected to reduce the noise occurred in measuring the compliance to MD requirements. Without such an index, it is not easy to distinguish whether the company is complying with minimum disclosure requirements or detailed disclosure requirements (Al-Razeen and Karbhari, 2004:352).

For VD index items, a review of disclosure literature is conducted in order to identify the items relevant to this study. In addition, annual reports for Jordanian companies listed in ASE are revised in order to determine the appropriate quantitative and qualitative information.

Furthermore, the study adopts two approaches for scoring the items: the unweighted approach and the weighted approach. The unweighted approach is used for MD and VD indices. An item is given 1 if it is disclosed and 0 if it is not disclosed (dichotomous approach). This approach is used, since the focus of this study is to all users, and not for specific users (Omar and Simon, 2011:176). In addition, Hossain and Hammami (2009:259) discussed that using weighted and unweighted scores would make little or no difference on the results. This approach has been employed in several prior studies (i.e. Cooke, 1989; Ahmed and Nicholls, 1994; Raffournier, 1995; Inchausti, 1997; Haniffa and Cooke, 2002; Al-Shiab, 2003; Hossain and Hammami, 2009; Al-Akra et.al, 2010; Omar and Simon, 2011; Al-Akra and Hutchinson, 2013; and Popova et.al, 2013).

However, the weighted approach is used in this study for the partial MD index. This approach gives scores and weights for items, which contain detailed information. For example, in regards the inventory, the company could disclose the amount of inventory, the components of inventory, the market value of inventory and the cost formula used.

Therefore, the company is awarded 0.25 of a point for each information. For example, if the company discloses only the amount, it is awarded 0.25 of the point. If it is discloses the amount and the components, it is awarded 0.50 of the point. If it is discloses all of the information, it is awarded one point.

> *"This procedure, which was first suggested by Byzby (1974), is expected to reduce the subjectivity of the scoring process and produce a more reliable measure of the level of the annual corporate disclosure" (Al-Razeen and Karbhari, 2004:355).*

Different studies used both, weighted and unweighted approach, such as: Naser and Nuseibeh, 2003; Al-Razeen and Karbhari, 2004; Tsalavoutas, 2011; and Robertson et.al, 2012).

The major problem, which emerges in construction the disclosure index, is whether the item is relevant to all companies or not (applicable or not applicable). Hence, it is assumed that if the item is not mentioned in the annual report, it can be considered as not applicable. In order to reduce the bias, each annual report is read carefully in order to determine if the item is applicable or not to the company's operations. "Therefore, companies were not be penalized for non-disclosure if an item was considered to be irrelevant to its activities" (Omar and Simon, 2011:176).

The validity and reliability are checked for the disclosure indices in this study. The validity is checked by reviewing the disclosure indices independently by two other researchers (Tsalavoutas, 2011:396). Meanwhile, the reliability is checked by conducting a pilot study in order to ensure that the all researchers score the items consistently. (Tsalavoutas, 2011:396).

3.3. Hypotheses Development

The following hypotheses are developed in order to achieve the objectives of the study:

H1: There is a significant association between compliance to MD and VD.

MD index is disaggregated into two indices: DDAAS index and IFRSs index. Thus, it is interesting to test the effect of each index (regulation) on the extent of VD, in order to shed the light on the disclosure policies and strategies for Jordanian companies.

H1a: There is a significant association between compliance to DDAAS and VD.

H1b: There is a significant association between compliance to IFRS and VD.

H2: There is a significant association between compliance to partial MD and VD.

4. Summary

Investigating the compliance to mandatory disclosure requirements and its relationship with voluntary disclosure is significant in Jordan country. "Empirical studies examining the impact of disclosure regulation on mandatory disclosure compliance are limited" (Al-Akra et.al, 2010:174). In addition, the interaction and relationship between MD and VD is still under discussion. This study could have significant implications for regulators that the flow of information is the capital market should consider the interaction among all different channels of information (i.e. MD and VD). Moreover, the policy makers will have adequate knowledge to design the disclosure regulations in light of their influence on the level of disclosure for other source of information (i.e. VD). Exploring such an interaction will provide an implication for researchers that MD and VD are not separated elements, and researchers should take into consideration the relationship between them. Finally, exploring the interaction between components of MD (e.g. DDAAS, IFRS) and VD will enhance our understanding about the effective enactment on the extent of VD.

References

Adina, P. and Ion, P. (2008), 'Aspects Regarding Corporate Mandatory and Voluntary Disclsoure', *Economic Science Series*, 17, (3), pp.1408-1412

Ahmed, K. and Nicholls, D. (1994), 'the Impact of Non-Financial Company Characteristics on Mandatory Disclosure Compliance in Developing Countries: The Case of Bangladesh', *the International Journal of Accounting*, 29, pp. 62-77

Al-Akra, M., and Hutchinson, P. (2013), 'Family Firm Disclosure and Accounting Regulation Reform in the Middle East: The Case of Jordan', *Research in Accounting Regulation*, 25, pp. 101-107

Al-Akra, M., Eddie, I.A, and Ali, M.J. (2010), 'the Influence of the Introduction of Accounting Disclosure Regulation on Mandatory Disclosure Compliance: Evidence from Jordan', *the British Accounting Review*, 42, pp. 170-186

Al-Htaybat, K. and Napier, C. (2006), '*A Framework for Financial Disclosure Theories*' 'Working Paper, School of Management, University of Southampton

Al-Mutawaa, A. and Hewaidy, A.M. (2010), 'Disclosure Level and Compliance with IFRSs: An Empirical Investigation of Kuwaiti Companies', *International Business and Economic Research Journal*, 9. (5), pp.33-49

Al-Razeen, A. and Karbhari, Y. (2004), 'Interaction between Compulsory and Voluntary Disclosure in Saudi Arabian Corporate Annual Reports', *Managerial Auditing Journal*, 19, 3, pp. 351-360

Al-Shiab, M. (2003), '*Financial Consequences of IAS Adoption: The Case of Jordan*', PhD Thesis, University of Newcastle Upon-Tyne

Amman Stock Exchange: www.ase.com.jo/en/exchange-news-2006 [Access: 12/10/2013]

Bangoli, M. and Watts, S.G. (2007), 'Financial Reporting and Supplemental Voluntary Disclosures', Journal *of Accounting Research*, 45, (5), pp.885-913

Broberg, P., Tagesson, T. and Collin, S.O. (2010), 'What Explains Variation in Voluntary Disclosure? A Study of the Annual Reports of Corporations Listed on the Stockholm Stock Exchange', *Journal of Management and Governance*, 14, pp. 351-377

Cooke, T.E. (1989), 'Voluntary Corporate Disclosure by Swedish Companies', *Journal of International Financial Management and Accounting*, 1, (2), pp. 171-195

Dye, R.A. (1985), 'Strategies Accounting Choice and the Effect of Alternative Financial Reporting Requirements', *Journal of Accounting Research*, 23, (2), Autumn, pp.544-574

Dye, R.A. (1986), ‘Proprietary and Nonproprietary Disclosures’, *the Journal of Business*, April, 59, (2), pp. 331-366

Einhorn, E. (2005), ‘the Nature of the Interaction between Mandatory and Voluntary Disclosures’, *Journal of Accounting Research*, 43, (4), September, pp. 593-621

El-Gazzar, S.M. and Fornaro, J.M. (2012), 'Voluntary Versus Mandatory Corporate Disclosures on Management Responsibilities for Financial Reporting: An Empirical Investigation', *Global Review of Accounting and Finance*, 3, (2), pp.74-93

Haniffa, R.M. and Cooke, T.E. (2002), ‘Culture, Corporate Governance and Disclosure in Malaysian Corporations’, *Abacus*, 38, (3), pp. 317-349

Horton, J., Serafeim, G. and Serafeim I. (2013), 'Does Mandatory IFRS Adoption Improve The Information Environment?', *Contemporary Accounting Research*, 30, (1), pp.388-423

Hossain, M. and Hammami, H. (2009), 'Voluntary Disclosure in The Annual Reports of An Emerging Country: The Case of Qatar', *Advances in Accounting, incorporating Advances in International Accounting*, 25, (1), pp. 255-265

Inchausti, B.G. (1997), ‘The Influence of Company Characteristics and Accounting Regulation on Information Disclosed by Spanish Firms’, *The European Accounting Review,* 6, (1), pp.45-68

Juhmani, O.I.H. (2012), 'Factors Influencing the Extent of Corporate Compliance with IFRS: Evidence from Companies Listed in Bahrain Stock Exchange', *Journal of International Business and Economics*, 12, (2), pp.67-79

Marston, C.L. and Shrives, P.J. (1991) ‘the Use of Disclosure Indices in Accounting Research: A Review Article’, *British Accounting Review*, 23, pp. 195-210

Naser, K. and Nuseibeh, R. (2003), ‘Quality of Financial Reporting: Evidence from the Listed Saudi No financial Companies’, *The International Journal of Accounting*, 38, pp. 41-69

Omar, B. and Simon, J. (2011), 'Corporate Aggregate Disclosure Practices in Jordan', *Advances in Accounting, incorporating Advances in International Accounting*, 27, (1), pp. 166-186

Popova, T., Georgakopoulos, G., Sotiropoulos, I. and Vasileiou, K. (2013), 'Mandatory Disclosure and Its Impact on The Company value', *International Business Research*, 6, (5), pp.1-16

Qu, W., Cooper, B.J., Wise, V. and Leung, P. (2012), 'Voluntary Disclosure in A Changing Regulatory Environment- Evidence from Chinese Stock Market', *International Journal of Economics and Finance*, 4, (4), pp. 30-43

Raffournier, B. (1995), ‘The Determinants of Voluntary Financial Disclosure by Swiss Listed Companies’, *The European Accounting Review*, 4:2, pp. 261-280

Robertson, C.J., Al-Angari, H.A. and Al-Alsheikh, S.A. (2012), 'The Impact of Voluntary Disclosure on The Mandatory Disclosure of Financial Information: A Study of Companies on The Saudi Arabian Stock Exchange', *International Journal of Management*, 29, (1), Part 2, pp.379-388

Roudaki, J. (2011), 'Quality and Quantity of Corporate Disclosure by NZ Listed Companies after Implementing IASs and IFRSs', *Journal of Accounting- Business and Management*, 18, (1), pp.39-64

Taplin, R., Tower, G. and Hancock, P. (2002), ‘Disclosure (discernibility) and Compliance of Accounting Policies: Asia- Pacific Evidence’, *Accounting Forum*, 26, (2), June, pp.172-190

The Securities Law No.76 for the year 2002, Amman, Jordan Tian, Y. and Chen, J. (2009), 'Concept of Voluntary Information Disclosure and A Review of Relevant Studies', *International Journal of Economics and Finance*, 1, (2), pp.55-59

Tsalavoutas, I. (2011), 'Transition to IFRS and Compliance with Mandatory Disclosure Requirement: What is The Signal?’ Advances in Accounting, incorporating Advances in International Accounting, 27, pp. 390-405

The Annual Conference of Economic Forum of Entrepreneurship & International Business ISSN: 1925-461X
The 4th Annual Conference of Economic Forum of Entrepreneurship & International Business ISBN: 978-0-9869581-2-0

LITERATURE REVIEW ON FACTORS INFLUENCING ACCESSING BANK LOAN ISSUES OF SMALL AND MEDIUM ENTERPRISES (SMEs) IN LIBYA

Assoc Prof. Dr. Nassr Saleh Mohamad Ahmad
Business School, Libyan Academy, Tripoli- Libya; Middle East Knowledge Economy Institute (MEKEI), Brighton Business School, Brighton University, UK, and World Association for Sustainable Development (WASD), Sussex University, UK
Email: nassr_ahmad@hotmail.com

Mr. Ramadan Ahmed A Atniesha
Financial Controller of Libyan Embassy in Poland, Warsaw, Poland
Email: finanse@ambasadalibii.pl

Abstract

Purpose: This paper seeks to introduce, summarise, and reflect on the key themes and findings raised by the six papers selected for this literature review devoted to Factors Influencing Accessing Bank Loan Issues of Small and Medium Enterprises (SMEs) in Libya.

Design/methodology/approach: The conclusions are drawn from desk research generally and the articles contained in this collection**.**

Findings: By reviewing the available literature on access to finance by SMEs in Libya, the study found that previous studies appear largely united in their results. They reveal that some of internal, institutional and external factors have a significant effect on access to finance by Libyan SMEs. The paper also noted that a number of other factors identified by the literature, have not studied in Libyan context and could be a topic of further researches. Finally, in terms of research methodology, two approaches were adopted in these previous studies namely: (1) one-dimensional analysis (Demand-side study); and (2) two-dimensional analysis (Demand and Supply-side).

Research limitations/implications: The main limitation of the literature review, as a study methodology, is that it relies on information which has already been researched (secondary information), and if there is none, then specific questions on the new study might not be adequately answered. Secondly, owing to different objectives and methodologies (and study designs) of previous studies, the data might not be in the right format or specific enough to answer the current study. Because of these limitations, a literature review is always conducted in preparation for primary and more detailed research.

Originality/value: This is the first review of this area and thus should help intending and existing scholars. It presents a collection of mainly empirical papers on an important but neglected topic, namely Small and Medium Enterprises might aid economic development in Libya.

Keywords: Small and Medium Enterprises (SMEs); Accessing Bank Loan Issues; Libya.

Paper type: Literature review paper

1.0 Background and Introduction

There is a growing recognition that Small and Medium Enterprises (SMEs, thereafter) can be a vital resource to combating some of the challenges facing the region by contributing to job growth and the economy, and bridging some of the regional economic development imbalances that have emerged within developed and developing countries (Gallagher and Stewart, 1984; Ganguly, 1985; Bums and Dewhurst, 1986; Dyson, 1990; Keasey and Watson, 1993; Berry and Levy, 1994; Binks et al., 1997; Cook and Nixson, 2000; Sanusi, 2003; OSCE, 2006; Ariyo, 2008; Kpelai, 2009; Ayozie and Latinwo, 2010; Emine, 2012; Muritala, et al., 2012; Kiraka, et al., 2013).

For example, Emine (2012, p. 19) stated that: "according to the Union of Arab Bank Statistics, there are more than 10 millions establishments in the region that fall under the category of SMEs. 90% of the micro and small establishments accounts for 80% of all non-agricultural sector employment. All these statistics clearly indicates the vital role of SMEs in the economic growth of Arab countries".

However, it is generally acknowledged that there is substantial evidence that SMEs face large growth constraints and have less access to formal sources of external finance, potentially explaining the lack of SMEs contribution to the country's economic growth (Beck and Kunt, 2007; Lin, 2007; Deakins et al., 2008; Shen et al., 2009; Riding et al., 2010; Terungwa, 2012; Kira, 2013). Lin (2007) described that over 98% of SMEs have no access to formal financing. Shen et al. (2009) identified that SMEs in China obtain only 12% of their capital from bank loans, while their peers obtain 21% in Malaysia and 24% in Indonesia. It is a reality that many SMEs are launched with inadequate financial resources, and they are facing difficulties to raise capital from the formal finance sector. Therefore, to find funds for startup or expansion can be the greatest obstacle faced by many entrepreneurs, as it is the underlying theme of the inherent information asymmetry between financiers and firms (Berger at et. 2011; Abdulsaleh and Worthington, 2013).

The factors influencing the access to debt financing to SMEs are many and complex. However, while studies on such financing constraints of SMEs have spanned many developing countries (Coco, 2000; Cassar, 2004; Zhao, 2008; Nichter, 2009; Anis and Mohamed, 2012; Hall et al., 2000; Beck et al, 2006; Sarapaivanich and Kotey, 2006; Gilbert, 2008; Klapper, 2010; Pandula, 2011; Kira, 2013), little systematically documented literature appears available on the subject in the case of Libya. This research aims to fill that gap by seeking to introduce, summarise, and reflect on the key themes and findings raised by the available papers selected for this literature review devoted to Factors influencing accessing bank loan issues of Small and Medium Enterprises (SMEs) in Libya.

This study is organised as follows. Section two discuses research methodology. Section three dials with the definition of SMEs in Libya. Section four discuses the importance of SMEs in socio-economic development in Libya. Section five provides details about SMEs access to finance in Libya. Section six analyses and discusses the factors influencing accessing bank loan issues of SMEs in Libya. The final section concludes the papers.

2.0 Research Methodology

The research methodology employed in this research involved an extensive review and analysis of relevant literature, studies and surveys on SMEs access to finance in Libya. However, the main limitation of the literature review, as a study methodology, is that it relies on information which has already been researched (secondary information), and if there is none, then specific questions on the new study might not be adequately answered. Secondly, owing to different objectives and methodologies (and study designs) of previous studies, the data might not be in the right format or specific enough to answer the current study. Because of these limitations, a literature review is always conducted in preparation for primary and more detailed research (NCR, 2011). Thus, this research aims to provide a theoretical framework for the research followed by other researchers in future.

A comprehensive literature search of published academic, peer reviewed professional literature using a variety of databases including journal articles, conference papers and thesis, both published and unpublished, was conducted. The main sources was the Internet. The collected data or information was categorised into three groups namely: definition of SMEs in Libya, importance of SMEs in socio-economic development in Libya, SMEs access to finance in Libya and factors influencing accessing bank loan issues of SMEs in Libya.

3.0 Definition of SMEs in Libya

Understanding the SMEs and its contribution to the economy is not complete without identifying the still unresolved question of what really constitutes SMEs. There is no universally agreed definition of SMEs. Generally, there are two common approach to defining the SMEs (Raslimahmood, 2000). The first is a functional definition in which the small businesses are distinguished from the larger ones on the basis of suspected or proven characteristics. For example, Ang (1991), suggest that a business is classified as small if it possesses most of the following characteristics: (a) it has no publicly traded securities, (b) the owners have undiversified personal portfolios, (c) limited liability is absent or ineffective, (d) first generation owners are entrepreneurial and prone to risk taking, (e) the management team is not complete, (f) the business experiences the high cost of market and institutional imperfections, (g) relationships with stakeholders are less formal, and (h) it has a high degree of flexibility in designing compensation schemes.

The second approach to the definition of a small business employs some quantitative measures, such as number of employees, sales turnover, level of output or capital assets (Abdulsaleh and Worthington, 2013).

However, in Libya, the Ministry of Manpower, Training and Employment (MMTE) adopted the second approach in defining the SMEs in Libya. The MMTE establishes a national standard for SMEs, which stated that: "private productive or service businesses and instruments for economic and social development accommodate the strengths of youth, and which includes professional administrative, and technical specifications which are suitable to operate efficiency" (Hajjaji, 2012, p.14). The MMTE classified SMEs in Libya as shown in the table (1).

Table (1) Libyan classification for productive, service, and commercial businesses

Business	Size of employment	Size of fixed assets
Small	No more than 25	Less than 2.5 Million Libyan Dinars
Medium	26-50	Less than 5 Million Libyan Dinars
Large	More than 51	More than 5 Million Libyan Dinars

Source: MMTE Report of 2004 (reported in Hajjaji, 2012).

4.0 Importance of SMEs in Socio-Economic Development in Libya

The Ministry of Trade and Economy (MTE) in 2006 estimated the number of SMEs in Libya at 180,000 (Elmansori and Arthur, 2013; Eltaweel, 2012; Porter and Yergin, 2006). However, there is a large number of SMEs in the Libyan economy, though the exact size of the sector is unknown. This is due to the fact that most SMEs in Libya have conducted their business outside the formal economy to avoid taxation and other fiscal and regulatory considerations (Porter and Yergin, 2006). Currently the SME sector is dominated by the production of food products, wood products, and metal for construction. Some SMEs also engage in the production of clothing, ceramics and bricks, grain milling and press and publication goods (Gunto and Alias, 2013).

SMEs are very important to Libyan economy because of the fact that the economy of Libya suffers from lack of economic diversification in its activities (Eltaweel, 2011; Abdwahab and Abdesamed, 2012; Zarook et al., 2013 a, b). The government has proactively created the national programs for SMEs in 2008 to promote a vibrant SME sector. However, although 96% of the enterprises in Libya are small and medium enterprises, their contribution to the GDP of the country is only 4% (Atniesha, 2009; Abdesamed and Abdwahab, 2012; Essmui et al., 2013). This is supported by UN's report of 2008. It stated that: "the contribution of SMEs to the Gross Domestic Product (GDP) is estimated to be less than 10 percent in most African counties" (UN, 2008, p. 6). The main aspects of this disadvantaged position is due to: (1) the Libyan economy is heavily dependent on the exports of oil for state revenue; more than 96 percent of exports are from the oil sector (Eltaweel, 2012, UN, 2008), and (2) the financial difficulties for these enterprises to have accessed for bank loan successfully (Falah, 2006; Eltaweel, 2011; Abdesamed and Abdwahab, 2012; Zarook et al., 2013 a, b).

5.0 SMEs Access to Finance in Libya

Access to finance refers to the possibility that individuals or enterprises access financial services, including credit, insurance, and other risk management services (Beck and Demurguc-Kunt, 2006). Abdulsaleh and Worthington (2013, p.36) indicated that:"financing methods employed by SMEs vary from initial internal sources, such as owner–manager’s personal savings and retained profits (Wu et al, 2008) to informal outside sources, including financial assistance from family and friends (Abouzeedan, 2003), trade credit, venture capital and angel financiers (He and Baker, 2007), and thence to formal external sources represented by financial intermediaries such as banks, financial institutions and securities markets (Chittenden et al., 1996)".

In Libya, bank lending to SMEs Firms is relatively low say about (17.1%), SMEs tend to depend a lot on their own fund (60.5% of firms) for financing at startup stage, this is according to survey conducted by Abd Wahab and Abdesamed (2012). Moreover, Eltaweel (2011) and Elmansori and Arthur (2013) found out that loans from banks represent only 11% and 8%. These results provide a support to the Pecking Order Theory (POT). According to the POT, firms have a strong preference for internal finance as it is believed to have a cost advantage over new debt and equity. If external finance is required, firms first issue debt and when all other "safe" options are exhausted; they issue equity as a last resort (Myers, 1984).

However, Abd Wahab and Abdesamed (2012) noted that 72.4 % SMEs financing after start up still use informal financing, such as personal savings 25%, also family (25%), trade credit 15.8% and SME profits 5.3%. Only, 27% use the bank loan. SMEs, after the startup stage, are perceived to have built a good rapport with their banks. Table (2) gives a description of this trend.

Table (2) Source of Finance of SMEs in Libya

Source at the Startup stage	Percentage	Source after the Startup stage	Percentage
Personal Saving	60.5	Personal Saving	25.0
Family Loan	3.9	Family Loan	25.0
Friend Loan	9.2	Trade Credit	15.8
Active Partner	2.6	Firm Profit	5.3
Inactive Partner	5.3		
Bank Loan	**17.1**	**Bank Loan**	**27.6**
Total	98.7	Total	98.7
Missing System	1.3	Missing System	1.3
Overall Total	100	Overall Total	100

Source: Abd Wahab and Abdesamed (2012, p. 1538-1539).

The Global Competitiveness Report 2013-2014 ranked Libya as the last country but one (147) on financial market sophistication in a survey of 148 countries. In the same survey Libya ranked 142 on financing through local equity markets, and 130 on ease of access to loans. Venture capital availability is almost completely absent in the Libyan financial market, reflected in Libya being classified 128 from 148 countries on the availability of venture capital finance. The same report ranked the access to financing among the most problematic factors for doing business in Libya (Schwab and Sala-i-Martín, 2013).

This was supported by Eltaweel (2011), who found that twenty-three out of twenty-seven in the sample (85%) claimed that obtaining finance (lack of access to capital) was one of the main problems. Eleven out of twenty-three thought that access to bank loans required effort, time, guarantees and documents. Furthermore, Elmansori and Arthur (2013), where 73% of their respondents indicated that the financial conditions set by conventional bank when apply for finance to their business are either very difficult or difficult. Moreover, Hajjaji (2012) found that 72% of owner-managers of SMEs in Libya indicated that problems with access to finance had a high level of impact on growth of their firms. Thus, many studies have been undertaken to find out the most important factors which affect firms to have access to bank loans in Libya.

6.0 **Factors Influencing Accessing Bank Loan Issues of SMEs in Libya**

Internal, institutional and external factors have been identified as key factors influencing SMEs access to finance (Abdulsaleh and Worthington, 2013; Barbosa and Moraes, 2004; Beck and Demurguc-Kunt, 2006; Dolova, 2011).

6.1 Internal Factors

A number of borrower-specific (entrepreneurial) and firm (enterprise) related variable have been identified by various researchers (Abdulsaleh and Worthington, 2013; Al-Kharusi, 2003; Ayodeji and Balcioglu, 2010; Barbosa and Moraes, 2004; Dolova, 2011; Kira, 2013; Pandula, 2011; Simpemba, 2002) as have a great influence on SMEs access to finance. These factors include gender, the level of education, the level of experience, networking, the size and age of firm, the ownership type, industry sector, firm location, financial performance, business plan and audited financial statements. Table (3) summarises the influence of such factors on accessing bank loan of SMEs in Libya as identified by the literature compared with results of some developing countries' studies.

Table (3) demonstrates that there is positive relationship and interdependence between access to finance and demographic factors (size, age, sectors, business plan) of SMEs. Moreover, it reveals that education and experience of owner-managers of SMEs positively and significantly affect access to finance. However, it indicates that personal network and financial performance have no significant affect on access to finance. These results seem to be consisted with situation in other developing countries. However, there are number of factors identified by the literature but have not studied in Libyan context which could be a topic of further researches.

6.2 Institutional Factors

Bureaucracy, loan application forms, lack of understanding of the loan application procedure, lack of understanding of the lending criteria, collaterals volume, interest rate and lack of access to information have identified as the major variables influencing SMEs access to finance (Dolova, 2011; Hajjaji, 2012; Mahadea and Pillay, 2008).

Eltaweel (2011), who did a supply-demand survey on finance of SMEs in Libya found positive relationship and interdependence between access to finance and some of these factors namely, Bureaucracy, collaterals volume, interest rate and lack of access to information. He stated that “Twenty-one of the sample (about 78%) thought that bank loans were too costly, both in terms of collateral (125% of the loan) and interest rate (5-7.5% of the loan)" p. 205. Furthermore he found that too much bureaucracy was applied in the banking sector, particularly to SMEs. Owners of SMEs were often left waiting from six months to one year to receive a decision about a loan from a bank. The vast majority of respondents in his sample claimed that their small business was constrained by the bureaucracy of institutions. These results confirm the results of Atniesha (2009) in regarding to the relationship between bureaucracy and access to finance.

Moreover, Abd Wahab and Abdesamed (2012) who found that the most important reason as to why SMEs do not apply for any loan from the bank is due to the presence of interest and collateral required.

Table (3) Internal Factors Influencing Accessing Bank Loan Issues of SMEs in Libya

Factors	**Relationship with Access to Finance**								
	Libya (Demand – Side Studies)				**Developing Countries**				
	Zarook et al.,(2013a)	**Zarook et al. (2013b)**	**Zarook et al. (2013c)**	**Abdesamed and Abdwahab, 2012b).**	**Nigeria Ayodeji and Balcioglu, (2010)**	**Kenya Musamali and Tarus (2013)**	**Tanzanian Kira (2013)**	**SriLanka Pandula (2011)**	**Oman Al-Kharusi, (2003)**
Age of SMEs			Positive			Positive	Positive	No affect	Positive
Size of SMEs			Positive			Positive	Positive	No affect	No affect
Sector of SMEs			Positive		Positive	Positive	Positive	No affect	
Education of owner-manager		Positive		Positive	Positive	Positive		Positive	No affect
Experience of owner-manager		Positive		Positive		Positive			Positive
Business Plan		No affect		Positive				No affect	Positive
Personal Networking		No affect						Positive	
Financial Performance of SMEs	No affect							No affect	

Factors have not studied in Libyan context:

1. Location of SMEs.
2. Having audited financial statements.
3. Ownership type.
4. Availability of information.
5. Gender of owner-manager.
6. Owner-manager age.
7. Availability of collateral.
8. Entrepreneurial family background-family history.
9. Skilled employees.

6.3 External Factors

The external or systemic factors (also known as state variables and environment factors) variable have been identified by various researchers (Beck et al., 2006; Beck and Demirguc-Kunt, 2007; Dolova, 2011; Hajjaji, 2012) as have a great influence on SMEs access to finance. They include government bureaucracy, social relationships, legal system, taxation, lack of government policy and socio-cultural factors.

Eltaweel (2011) found a relationship between access to finance by Libyan SMEs and some of these factors namely, social relationship and government policy. He stated that owners of SMEs in Libya believe that, without good relationships, getting facilities from institutions was too hard. The vast majority of respondents in his sample complained about the instability of government decisions. A lack of realism in government decisions was seen to have significantly affected the growth of Libyan small businesses. Investors were unable to take loans from banks or other institutions due to the Instability of government decisions.

Abd Wahab and Abdesamed (2012) found a relationship between access to finance by Libyan SMEs and socio-cultural factors (practically religion). They found that "loan has interest" is the highest important reason as to why SMEs do not apply for any loan from the bank. This is because in Islam, interests (Riba) are prohibited in all affairs, including in the business transactions. The verses of the Qur'an state: (Surah al-Rum,verse 39) "that which you give as interest to increase the people wealth increase not with God; but that which you give in charity, seeking the Goodwill of God, multiplies manifold." (30:39) and in (Surah al- Imran, verses 130-2) "O believers, take not doubled and redoubled interest, and fear God so that you may prosper. Fear the fire which has been prepared for those who reject faith, and obey God and the prophet so that you may receive mercy".

Finally, the following two points can be concluded from a review of these previous studies: **First,** In terms of research methodology, two approaches were adopted in the previous studies in investigating the most important factors which affect firms to have access to bank loans in Libya namely: (1) one-dimensional analysis (Demand-side study); and (2) two-dimensional analysis (Demand and Supply-side). Almost all of previous studies were one-dimensional analysis (Demand-side study). By using questionnaire survey, they investigated the most important factors which affect firms to have access to bank loans in Libya from prospective of owner-managers of SMEs only and gave more attention to the internal factors rather the institutional and external factors.

Eltaweel (2011), is the only who used two-dimensional analysis. He, thus, investigated the most important factors which affect firms to have access to bank loans in Libya from prospective of both owner-managers of SMEs and bank managers by using semi-structured interviews. Such approach allowed better understanding of the picture than would has been provided by one-dimensional analysis (Demand-side study).

Second, the results of these previous studies were almost similar. This endows their findings with more objectiveness. Some of internal, institutional and external factors have been identified as key factors influencing SMEs access to finance in Libya by these studies. However, they fail to investigate a number of other factors identified by the literature, which could be a topic of further researches.

7.0 Conclusion: This study has taken an important step toward illuminating finance of SMEs in the context of Libya. It complements the literature reviews on SMEs with special focus on the developing countries. Taking into consideration that the financial behaviour of large firms cannot be applied to SMEs as large firms significantly differ from SMEs, this paper surveys the literature on the various financing sources available for Libyan SMEs including personal savings, family fund, trade credit, SME profits and bank loan. In order to attain more in-depth understanding of the financing decisions of SMEs the paper also explores the effects of the internal, institutional and external factors on the accessing to bank loan by Libyan SMEs. By reviewing the available literature, the study found that previous studies appear largely united in their results. They reveal that some of such factors have a significant effect on access to finance by Libyan SMEs. The paper also noted that a number of other factors identified by the literature, have not studied in Libyan context and could be a topic of further researches.

Finally, it is worth to mention that there are two so important and urgent recommendations to policy-makers have been cited by Eltaweel (2011) namely:

(1) The method of Islamic funding has seen success in a number of countries, and the owners of businesses in these countries prefer to deal with this method of funding. The

Libyan government should learn from these countries and develop strategies to narrow the financing gap that faces small business growth through establishing Islamic banks and also through allow to Islamic banking to operate in Libya.

(2) Lack of access to external finance is the main problem identified by all previous studies on financing of SMEs in Libya. The government must work together with the financial institutions and banks to narrow the gap between the SMEs and financial institutions in order to help SMEs grow.

References

Abd Wahab, K. and Abdesamed, K. (2012), "Small and Medium Enterprises (SMEs) Financing Practice and Accessing Bank Loan Issues -The Case of Libya", *World Academy of Science, Engineering and Technology*, Vol. 72 (1), pp. 1535-1540.

Abdesamed, K. and Abd Wahab, K. (2012), "Do experience, Education and Business plan influence SMEs start-up Bank loan? The Case of Libya", *Australian Journal of Basic and Applied Sciences*, Vol. 6 (12), pp. 234-239.

Abdulsaleh, A. and Worthington, A. (2013), "Small and Medium-Sized Enterprises Financing: A Review of Literature", *International Journal of Business and Management*; Vol. 8 (14), pp. 36-54.

Abouzeedan, A. (2003), Financing Swedish Small and Medium-Sized Enterprises (SMEs): Methods, Problems and Impact, Paper presented at the 43rd European Congress of the Regional Science Association, Jyväskylä, Finland.

Al-Kharusi, A. (2003), Financing Small Business in Oman, Unpublished PhD thesis, Longhborough University, UK.

Ang, J. (1991), "Small Business Uniqueness and the Theory of Financial", *Management, Journal of Small Business Finance,* Vol. 1(1), pp. 1-13

Anis, Omri and Frikha Mohamed, (2012), "How entrepreneurs identify opportunities and access to external financing in Tunisian's micro-enterprises?", *African Journal of Business Management*, Vol. 6, pp. 4635-4647.

Ariyo, D. (2008), "Small firms are the backbone of the Nigerian Economy", *Africa Economic Analysis, Academy of Management Journal,* Vol. 1(1), pp. 109-124.

Atniesha, R. (2009), the Role of Bank Loans on the Development of Small Business in Libya, MSc Desertion, Libyan Academy, Tripoli, Libya.

Ayodeji, A. and Balcioglu, H. (2010), "Financing Industrial Development in Nigeria: A Case Study of the Small and Medium Enterprises in Kwara State", *Global Journal of Management and Business Research*, Vol. 10 (3), pp. 46-60.

Ayozie, D. and Latinwo, H. (2010).“Entrepreneurial Developments and Small Scale Industry Contribution to Nigerian National Development: A Marketing Interface”. *Information Management and Business Review*, Vol. 1 (2), pp. 51-68.

Barbosa, E. and Moraes, C. (2004), Determinants of the Firm's Capital Structure: The case of the very small enterprise. (On line). Available: http://econpa.wustl .ed u. 8089/eps/fin/papers.

B eck, A. and Demirguc-Kunt. (2007), “Small and Medium Enterprises across the Globe: A New Database,” Small Business Economics 29, 415-434; Klapper, Leaven and Rajan “Entry regulation as a barrier to entrepreneurship,” Rauch “Modeling the informal sector formally”.

Beck. T., Demirguç-Kunt., A., Luc Laeven and Vojislav Maksimovic (2006), “The Determinants of Financing Obstacles”, *Journal of International Money and Finance*, Vol. (25), pp. 932-952.

Berger, Allen N. Adrian M. Cowan & W. Scott Frame, (2011), The Surprising Use of Credit Scoring in Small Business Lending by Community Banks and the Attendant Effects on Credit Availability, Risk, and Profitability *Journal of Finance Service Research*, Vol. 39 (1), pp. 1-17.

Berry, A. And Levy, B (1994), "Indonesia" Small and Medium Sized Exports and Their support Systems, policy Research Working paper No. 1402, Policy research Department, The World Bank, Washington DC.

Binks, M. and Ennew, C. (1997), Small Business and Their Banks in the Year 2000; Cited in Harrison, R. T And Mason C. M. (1996), "Development in the Promotion of Informal Venture Capital in the UK", *International Journal of Entrepreneurial Behavior and Research*, Vol.2 (2), pp. 6-33.

Bums, P. and Dewhurst, J (1986), Small Businesses in Europe, Macmillan Press, London.

Cassar, G., (2004), the Financing of Business Start-ups”. *Journal of Business Venturing*, Vol. 19 (1), pp. 261-283.

Chittenden, F., Hall, G. and Hutchinson, P. (1996), "Small Firm Growth, Access to Capital Markets and Financial Structure: Review of Issues and an Empirical Investigation", *Small Business Economics*, Vol. 8(1), pp. 59-67.

Coco, G., (2000), on the use of collateral. Journal of Economic Surveys, 14(2), 191-214.

Cook, P. and Nixson, F. (2000), Finance and Small and Medium Sized Enterprise Development; Finance and Development Research Program; Working Paper No. 14, Institute for Development Policy and Management, University of Manchester.

Deakins, D. North, D., Rob Baldock and Geoff Whittam, (2008), SMEs Access to Finance: Is Still a Debt Finance Gap? *Institute for Small Business and Entrepreneurship*, Vol.3 (1), pp.11-19.

Dlova, M. (2011), an Investigation into Constraints impacting on Small , Micro and Medium Enterprises (SMMEs) Access to Finance in Buffalo City Metropolitan Municipality, MBA Dissertation, Rhodes University.

Dyson, K. (1990), Small and Medium Sized Enterprises, Spicers European Policy Reports, Rutledge, London.

Elmansori, E. and Arhur, L. (2013), Obstacles to Innovation faced by Small and Medium Enterprises (SMEs) in Libya, World Association for Sustainable Development (WASD) outlook, University of Sussex, Sussex, UK.

Eltaweel, M. (2011), Financing of Small Business in the Libyan Economic Environment, Unpublished PhD thesis, University of Gloucestershire, UK.

Emine, D. (2012), Financial Challenges That Impede Increasing the Productivity of SMEs in Arab Region, Journal of Contemporary Management Submitted on 12/July/2012.

Essmui, H., Berma, M., Shahadan, F. and Ramlee, S. (2013), " Technical Efficiency of Manufacturing Enterprises in Libya: A Stochastic Frontier Analysis", International Journal of Management and Information Technology, Vol. 5(2), pp. 528-535.

European Neighborhood and Partnership Instrument (ENPI), (2013), Libya Strategy Paper and National Indicative Programme, 2011 - 2013.

Falah. K. Ali, (2006), " An Analysis Study to the Problems of Financing Small Projects with Reference to Experience of Libyan Development Bank in Darna City ,"*Munich .J*.,2006. Available http://mpra.ub.

Gallagher, C. and Stewart, H (1984), Jobs and Business Life Cycle in the UK. Research Report 2, Department of Industrial Management, University of Newcastle upon Tyne.

Ganguly, P. (1985), UK Small business Statistics and International Comparisons, Harper & Row, London.

Gilbert, B.A., (2008), New Venture Performance: Does Location Matters? [Online] Available: http://ftp.zew.de/pub/zew-docs/entrepreneurship/Gilbert.pdf.

Gunto, M. and Alias, M. (2013), " SMEs Development in Malaysia: Lessons For Libya", *PROSIDING PERKEM VIII, JILID* , Vol.3, pp. 1521 – 1530.

Hajjaji, I (2012), An Exploration of influences on the Growth of Small Firms in Libya, Unpublished PhD thesis, University of Gloucestershire, UK.

Hall, G., Hutchinson, P., and Michealas, N., (2000), Industry Effect on the Determinants of Unquoted SMEs Capital Structure. International Journal of the Economic of Business, Vol.7 (3), pp. 297-312.

He, W., and Baker, H (2007), "Small Business Financing: Survey Evidence in West Texas", *the Journal of Entrepreneurial Finance and Business Ventures, 12*(1), p. 27-54.

Keasey, K. and Watson, R. (1993), Small Firms Management: Ownership, Finance and Performance, Blackwell, Oxford.

Kira, A. (2013), "The Evaluation of the Factors Influence the Access to Debt Financing by Tanzanian SMEs", *European Journal of Business and Management*, Vol.5 (7), pp.1-24.

Kiraka, R. , Kobia, M. and Katwalo, A. (2013), Micro, Small and Medium Enterprise Growth and Innovation in Kenya: A Case Study on the Women Enterprise Fund, ICBE-RF Research Report No. 47/13, Investment Climate and Business Environment Research Fund (ICBE-RF), Dakar.

Klapper, L., Laeven, L., and Rajan, R., (2010), "Entry Regulation as a Barrier to Entrepreneurship", *Journal of Financial Economics*, Vol.82 (3), pp. 591-623.

Kpelai, T. (2009), Entrepreneurship development in Nigeria, Makurdi: Aboki Publishers.

Lin, Y. F. (2007), “Developing Small and Medium Bank to Improve Financial Structure”, Working paper, China Center for Economic Research, Peking University (in Chinese) cited in Emine, D. (2012), Financial Challenges That Impede Increasing the Productivity of SMEs in Arab Region, Journal of Contemporary Management Submitted on 12/July/2012.

Mahadea, D. and Pilay, M. (2008), "Environmental Conditions for SMME Development in a South African Province", *SAJEMS NS*, Vol. 11 (4), pp. 431-448.

Muritala, T. Awolaja, A. and Bako, Yusuf. A. (2012), “Impact of Small and Medium Enterprises on Economic Growth and Development”. *American Journal of Business and Management*, Vol.1 (1), pp.18–22.

Musamali, M. and Tarus, D. (2013), "Dose Firm Profile Influence Financial Access among Small and Medium Enterprises in Kenya?” Asian Economic and Financial Review, Vol. 3 (6), pp. 714-723.

Myers, S. (1984), "The Capital Structure Puzzle", *the Journal of Finance*, Vol.39 (3), pp. 575-592.

NCR (National Credit Regulator) (2011), Literature Review on Small and Medium Enterprises' Access to Credit and Support in South Africa, Pretoria, South Africa.

Nichter, Simeon and Lara Goldmark, (2009), "Small Firm Growth in Developing Countries", *Journal of World Development*, Vol. 37(1), pp. 1453-1464.

Organization for Security and Cooperation in Europe (OSCE) (2006), Small and Medium Sized Enterprises: Development and Promotion, Best-Practice Guide for a Positive Business.

Pandula, G. (2011), an Empirical Investigation of Small and Medium Enterprises' Access to Bank Finance: The Case of an Emerging Economy. *Proceedings of ASBBS, Annual Conference, 18*(1), pp. 255-273.

Porter, M. E., and Yergin, D. (2006). National Economic Strategy, an Assessment of the Competitiveness of Libya. The Monitor Group Report.

Raslimahmood, (2000), An Empirical Investigation of the Lending Decisions on Small Business by Band Managers in Malaysia, Unpublished PhD thesis, University of Glasgow, UK.

Riding, Allan., Barbara J., Orser. Martine Spence and Brad Belanger, (2010), "Financing New Venture Exporters", *Journal Small Business Economics*, DOI10.1007/s11187-009-9259-6.

Sanusi, J. O., (2003), Overview of Government's Efforts in the Development of SMEs and the Emergence of Small and Medium Industries Equity Investment Scheme (SMIEIS). A paper presented at the National Summit on SMIEIS organized by the Bankers' Committee and Lagos chambers of commerce and Industry (LCCI), Lagos, 10th June. [Online] www.cenbank.org/out/speeches/2003/govadd-10bjune.pdf.

Sarapaivanich, N., & Kotey, B., (2006), "The Effect of Financial Information Quality on Ability to Access External Finance and Performance of SMEs in Thailand", *Journal of Enterprising Culture*, 14(3), 219-239.

Schwab, K., and Sala-i-Martín, X. (2013), The Global Competitiveness Report 2013-2014, World Economic Forum, Geneva, Switzerland.

Shen, Yan., Shen, Minggao., Xu Zhong and Bai Ying (2009), "Bank Size and Small- and Medium- sized Enterprise (SME) Lending: Evidence from China", *World Development*, Vol. 37 (4), pp. 800–811.

Terungwa, A (2012), Financing Options Available to Small and Medium Scale Enterprises (SMEs) in Nigeria: a Critique, International Trade & Academic Research Conference (ITARC), 7 – 8th November, London.UK.

UN (United Nations), (2008), SMEs Actors for Sustainable Development in North Africa, Economie Commission for Africa, Office of North Africa.

Wu, J., Song, J., and Zeng, C. (2008), "An Empirical Evidence of Small Business Financing in China", *Management Research News*, Vol.31 (1), pp.959-975.

Zarook, T., Rahman, M. and Khanam, R. (2013a), "Management Skills and Access to Finance: Evidence from Libya's SMEs", *International Journal of Business and Management*, Vol. 4(7), pp. 55-65.

Zarook, T., Rahman, M. and Khanam, R. (2013b), "Does the Financial Performance Matter in Accessing to Finance for Libya's SMEs?", *International Journal of Business and Management*, Vol. 5 (6), pp. 11-19.

Zarook, T., Rahman, M. and Khanam, R. (2013c), "The Impact of Demographic Factors on Accessing Finance in Libya's SMEs", *International Journal of Business and Management*, Vol. 8 (14), pp. 55-65.

Zhao, J (2008), "Research on the Financing of Small and Medium Enterprises", *International Journal of Business and Management*, Vol. 3 (11), pp. 171-174.

Entrepreneurship & Small Business in 5-main points – *Theorizing my perspective*

Dr. Ghada G. Mohamed
gmohamed@eco-ena.ca, ghadagomaa1@yahoo.ca

The definition of the entrepreneurship and the small business cannot be a unified definition. From different conferences I organized in 4- countries so far; Egypt, Canada, UK, and France on entrepreneurship and International business I can deduce that there's a huge gap between practitioners and academics when it comes to those concepts.

Scientifically speaking; we may start from the reality by addressing real case studies and end up to a mathematical abstract that can mimic this reality. From reading about top recognized international entrepreneurs in different industries and from understanding the nature of the private business from its economic perspectives I can summarize main differences between the entrepreneurship and the small business in 5-main points stated below;

The First Difference:

The entrepreneur is an initiator with a new idea that adds intellectually or/ and physically to the existing knowledge in general, while a small business man/woman is a person who knows how to use existing or new ideas to create money out of them.

The Second Difference:

The entrepreneur's value added can be measured by the economics profit he/she makes out of his/ her new idea and by the accumulated positive externalities over time to the whole society. Whereas the small business man/ woman's output can be measured by the accounting profit he/she can make out of using existing or new ideas in business.

The Third Difference:

The entrepreneur doesn't hold the risk of the potential failure of his/ her initiative while the small business man/ woman hold the risk of the potential failure of his/ her project.

The Fourth Difference:

The entrepreneur's main cost can be compensated by selling out its initiatives over time while the small business man/ woman’s main cost cannot be compensated if its project incurs loses over time.

The Fifth Difference:

The entrepreneur accumulates wealth out of its initiatives directly while the small business man/ woman receive positive/ negative income over time and hence may accumulate wealth indirectly.

A simple example can explain those 5- differences easily. If we consider the tale of Ms. Ingy; a single elderly woman who faces social and financial constraints, she suddenly got an idea of creating a small circular community based on bartering so she can swap her handiwork crafts with other people within her community who enjoy a comparative advantage in creating different hand-made products. In order for Ms. Ingy to activate her idea and to make it feasible she used her highly skills of communication and she could succeed in convincing her community in making the idea applicable.

The barter market worked very well and Ms. Ingy became a successful well known woman among her community. Ms. Ingy could create an economic profit for herself and so does each person in this small community. (*Review what an economic profit means*).

Mr. Rich has heard about Ms. Ingy's market and her successful project. Mr. Rich went to each person in this market and bought all products in exchange for an amount of money. The barter market has collapsed as a result. The idea still existed but the barter market itself has collapsed and became just a regular market that depends on the market price. Mr. Rich could make a huge accounting profit from selling those wonderful products in a big exhibition he held in the city center.

Because Ms. Ingy lives in a good country that has a strong legislative system, she sued Mr. Rich and won her case. The verdict stated that Mr. Rich had to pay a big compensation to Ms. Ingy for using her idea and hard work. Ms. Ingy became rich, Mr. Rich kept accumulating profits, the society gained social profits and everyone lived happily ever.

Abstracting:

Let's use those notations to formulate Ms. Ingy's objective function, the Society's welfare function and Mr. Rich's objective function:

Let, Entrepreneur = E, The value added = VA, The Investor = I, The profit = π The Barter

Market = B, The community size = J, Money = M, Number of products = i, The Price per item = Pi, Utility = U, Producers = Qj, Welfare = W, Time = t, Cash flows = CF, Time preference = ρ, Interest rate = r, Failure = F, Success = S, and Expectation = E, we can then present the entrepreneur's objective function, the society's welfare function and the businessman's objective function as follows:

The Entrepreneur's Objective Function

Ms. Ingy's Objective function:

$$\text{Max} = \int_{0}^{\infty} U_t \,.\, e_t^{-\rho}, \quad = VA_t$$

Subject to:

$$(TR - TC) \geq 0$$

$E(F) = 0$ *because the minimum gain = selling the idea in exchange for money.*

The Society's Welfare Function

$$W_t = VA_{t1} + VA_{t2} + VA_{t3} + VA_{t4} + \ldots\ldots + VA_{tJ}, \qquad J \rightarrow \infty$$

Net externalities > o $\mid W_t > o,$

$\Sigma W_t \;\; \forall_{Es} \rightarrow 0$: *Pareto Optimality*

The Businessman's objective function

$$Max \int_{0}^{\infty} CF_t \,.\, e_t^{-r}$$

$$CF_{It} = \pi_{It} = (TR - TC)_{It}$$

$$E(F) = \theta,\ 1>\theta>0, \quad E(S) = (1-\theta).$$

In a competitive market; $CF_{It} \;\; \forall_{Is} \rightarrow 0$

In order for the above exposition to work within the above deductive framework all proposed assumptions must be held.

ECO-ENA, INC.