

## **Analysing innovative practices for Oman firms to excel on global markets and networking and linking with higher education**

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### **Key words**

Innovation, Creativity, HRM, Research, Incentive System, Prizes

### **Abstract**

*The main thrust of this research is to engage in a purely literature review to strategically analyse innovation best practice and highlight gaps and areas for further improvement in Oman and beyond. The main reasons giving rise to this research are the desire to illuminate world innovation best practice which Oman firms, government departments and academia can then use to advantage and benefit the country. This research is based on literature review only, analysis and identification of gaps in literature and knowledge. Research using literature review has the advantage of harvesting latest researches being done globally and then making them available to local institutions at least cost. The limitation is that no primary research was done and deep seated cultural and firm level issues may remain untapped. Literature summary clearly shows that innovation success and competitiveness requires good educational standards, funding, promotion, R & D, good reward and incentive schemes for researchers, sophistication, trust, strategic alliances and private and public partnerships. Oman firms/institutions can use these findings firm by firm as well as across support national institutions to see whether best practice is there, and if not the effects on business, academia and solutions thereof. Researchers believe these findings will help enhance and improve innovation practices in Oman and contribute to development. Colleges and universities can disseminate this new knowledge. Firms can benchmark using these findings. Oman lags behind United Arab Emirates in innovation output and practice, and findings in this research will illuminate possible reasons for correction.*

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### **1.0 Introduction**

The main thrust of this research is to engage in a purely literature review to strategically analyse innovation best practice and highlight gaps and areas for further research and improvement in Oman and beyond. The main reasons giving rise to this research are the desire to illuminate world innovation best practice which Oman firms, government departments and academia can then use to advantage and benefit the country (Refer to Appendices 1 & 11). This research is work in progress as field research will be done to dig deeper into these innovation issues. This paper deals with purely literature review and innovation best practice. Globalization was making the world increasingly smaller and the nature of competition in the international marketplace was no longer just about the value of the product or service – it was now about a highly-skilled workforce and creative production, Al Said (2013), PAIPED's Director General of Marketing and Media. He added, "If we want to retain talented Omanis working in the Sultanate, as well as attract talent from around the world, then prioritizing quality living, education, infrastructure, work environment and lifestyle is essential".

It was argued that, "The primacy of human capital is leading to a global war for talented people in much the same way that nations once fought over land because it was considered a productive asset. As a logical consequence of this new trend tangible assets will start to lose their value as collateral, while intangible human capital becomes bankable. It is becoming a key determinant of success or failure of organisations", The Emirates Center for Strategic Studies and Research (2003:4). They concluded that knowledge advantage was meaningless unless there was action to use the knowledge to advantage in practice, The Emirates Center for Strategic Studies and Research (2003:329).

Presently, scientific innovation and workforce development have become hot-button topics in the debate on how best to rejuvenate the U.S. economy. Thus, at some of the best polytechnic universities professors are more likely to be scholar practitioners in their field rather than just theorists. From their early beginnings, venerable polytechnics have distinguished themselves as forward-thinking institutions in the several critical fields of science, technology, engineering, and mathematics. Indeed, throughout history, "renaissance" connotes the rebirth of scientific and humanistic critical thinking, problem solving, and technological ingenuity. The rise of public higher education in the 20th century has closely paralleled the Industrial Revolution, creating a different kind of scientific, technological, and organizational model for leading institutions into the new millennium in science, technology, and engineering, Martin & Samels (2012). From this narrative it becomes clear that colleges and universities have to do targeted recruitments to recruit top industrial managers, technologists, engineers and designers into their systems to engender a culture of industrial compliance. These will be fused with pure academics to enrich academic debates, practices and embracing of reality. Who knows industrial requirements better than someone who has been there? A galaxy of pure academics only for any institution is now considered a dangerous liability and a mismatch with industrial expectations. Is this not one of the reasons why Oman industry is complaining about graduate non-compliance with labour market requirements and expectations? Mixed recruitments are the trend in the developed world now.

Transnational outsourcing makes it possible for Western companies to access the enormous labour reserves in countries such as China, India or Bangladesh without entering into formal (contractual) relations with these workers, Merk (2011:73-95). They said it provided global buyers with an opportunity to disassociate themselves from labour-intensive production activities, and thereby from struggles over wages, environment, conditions of work and reproduction. In this context, workers are increasingly treated as a subcontracted component rather than a fixture as part of employer organisations. In essence the developed world was indirectly promoting sweatshops and abuse of labour in Asia for their selfish benefit.

## **2.0 Innovation dynamics and collaboration**

The international environment is becoming more competitive and demanding, Sharma (2013:38-44). He says in addition, higher education and innovation are becoming more critical for countries to be able to benefit from the increasingly globalised international environment, therefore, South Asian countries had to improve their skills and innovation capabilities in terms of management education system. He suggested ten points which should be the focus area in creating world class business management education in South Asia that included academic delivery and curriculum, quality of business management faculties, cutting edge initiative for professional development, business management curriculum in sync with market needs, corporate relations, events/festivals, B School and public-private and cross-border research partnerships, information and communications technology in the delivery of program, more Positive Institutional Culture, faculty Incentive and Evaluation Systems and

traineeship/Summer Projects. Does Oman have all these activities/qualities in its universities and to what extent? (Appendices 1 & 11 & 111 give a clear picture of Oman/UAE trade statistics plus world innovation index). Academic incentives in other countries come in the form of academic promotions, sabbatical leave, contact leave, lower teaching loads, research leave, staff exchanges, sponsorship to attend conferences and to publish in journals/publish books, prizes for researchers and engaging industry in Technology Parks or Science Technology Parks, a joint venture between universities and industry to promote innovation and R & D and patenting breakthrough inventions. To what extent has Oman embraced these academic incentives?

Spin-off firms from research organisations are an important means of technology transfer from academia to business, Helm, Mauroner, Dowling & Pöhlmann (2013:217-242). Similar to other technology-based firms, spin-offs had to combine financial, structural and personal resources in order to overcome different challenges within the starting process.

The Middle East faces challenges particularly in the areas of employment nationalization policies, self-initiated expatriation, local employees' view on expatriate managers, female talent retention, knowledge transfer from multinational corporations to local subsidiaries, high performance work systems, and employee and leaders' behaviours, Marmenout & Lirio (2014:144-166). Public and private sector planners have to address issues in this direction to maximize performance and innovation output. A study by Syed, Hazboun & Murray (2014:212-233) revealed that local employees in Jordanian banks were generally indifferent to their manager's nationality as long as the manager has the capability to drive the subsidiary forward. However, one key concern of locals was the ability of expatriates to adapt to the local culture and business environment. The study also points towards a significant gap between the formal rationale for expatriation by multinational companies and what local employees perceived as real reasons behind expatriation.

In a recent research paper trust was seen as a requirement for successful collaborative innovation, but the paper identified how different dimensions of trust were located in the trust building processes. It said trust worked by creating a platform of confidence that fosters flows of information and the exchange of tacit knowledge. Two types of trust relationships, the technical and the social, worked in different ways to produce different, but complementary, types of trust. Virtual environments suited technical trust building but are less suited to developing deeper, more enduring forms of trust, Hardwick, Anderson, Cruickshank, (2013:4-21). The research was done to examine the practices and processes of trust building and use in collaborative networking for product innovation and to compare face to face with virtual networking. A study showed that job satisfaction and innovative work behaviour could be aligned in environments characterized by innovation trust, Bysted (2013:268-284). Further mental involvement was identified as a component increasing innovative work behaviour in situations without the opportunity for monitoring.

The findings by Uzokurt, Kumar, Kimzan & Eminoglu, (2013:92-117) revealed that in the banking sector, although organizational culture and innovation had a direct and positive effect on the firm performance dimensions, organizational culture was found to have an insignificant regression coefficient on the dimensions of firm performance in the presence of organizational innovations. These findings could be replicated to other sectors of the economy. A recent study on 'Highly innovative and extremely entrepreneurial individuals: what are these rare birds made of?', makes a contribution to theories of both entrepreneurship and innovation, Sandberg, Hurmerinta & Zettinig, (2013:227-242). It added conceptual clarity in terms of providing evidence that the individuals concerned should not be considered as one characteristic group of

actors. The authors proposed that highly innovative and entrepreneurial individuals could be further divided into entrepreneurial innovators and innovative entrepreneurs.

By exploring interpersonal interactions between expatriate Japanese and host national employees in Indonesia, the research by Shimoda (2013:3853-3871) highlighted the importance of their relationships in the implementation of organisational activities. With a focus on both Japanese expatriate and host national employees in a Japanese organisation in Indonesia, the ethnographic study examined the ways in which they worked in unfamiliar circumstances, managed differences and provided essential support for each other. Their transnational connections, characterised by what Granovetter called 'the strength of weak ties', functioned to diffuse information and knowledge effectively. He argued the significance of 'talk', particularly small talk, as an initial action that supports such information flow and builds trust. The paper attempts to demonstrate the vital roles of expatriate and host national employees as mediators, by using network analysis as a framework. Finally, he concluded that both expatriate and host national employees, the latter often seen merely as backseat players, are in fact keys to the successful activities of transnational organisations/corporations. These findings could be replicated to Oman and the wider Middle East. Language training for expatriates and English language training for locals could help bridge the language and cultural divide and lead to more talk interaction. Is it not time to think about language courses in Arabic for expatriate teachers to bring them closer to locals, students and college administrators?

Effective NPD teams establish knowledge ties with many non-redundant organizational stakeholders and foster a high level of agreement among stakeholders about team innovation factors, Büchel, Nieminen, Armbruster-Domeyer, Denison, (2013:22-49). They conclude that conversely, effective NPD teams also established highly centralized trust networks that are focused on only a few key stakeholders in the organization. This focuses on secrecy giving information to people who matter only to avoid leakages. A total of four broad forms of collaboration for universities and industry are suggested: distanced, translational, specified and developed collaboration, Lind, Styhre & Aaboen, (2013:70-91). If the role of the research centre was to be a forum for collaboration, the research centre had to be a good mediator between the actors in order to ensure their satisfaction with the research centre within and between projects. If, in contrast, the role of the research centre was to be a facilitator of collaboration, the research centre needed to enable the actors to learn how to interact with each other in order for the distanced, translational, specified collaboration to evolve into developed collaboration. The purpose of that paper was to explore university-industry collaboration in research centres. The Nizwa Industrial Zone has to look into this direction to unlock more value.

### 3.0 Prizes, funding and incentives for research and researchers

U.S. patent data indicate a 40 per cent increase after 1851 in patenting for prize-winners compared with other exhibits, Moser & Nicholas (2013:763-788). They said that results are robust to controlling for technology-specific pre-trends and for the quality of patents. They concluded that a comparison of changes in patenting for prize-winners with changes for technologies that were described in the Scientific American suggested that publicity for promising research fields may be an important mechanism by which ex-post prizes encouraged future innovation. What prizes are available in Oman for researchers and do they reach expected threshold? Academics and researchers are as good as any other entrepreneur who would always ask, 'What's in it for me?' If Oman academic institutions are serious about research then they need to budget for substantial amounts in prizes for breakthrough researches. Harvard University has got an annual research budget of US\$20 billion. Research is driven by money not rhetoric and wishes. Professor Michael Porter won the Nobel Prize for Economics in 1985 and was paid US\$5 million

for coming up with the Five Forces Model. Oman may not have these monstrous prizes but some meaningful token prizes would definitely spur innovation and research. Why should academics contribute their ideas for free while the same ideas fetch and generate millions for firms and government? This is an unanswered question in Oman and the Middle East which must be addressed if the country and its institutions are serious about world class innovation. Academics are psychological animals like other human beings who are motivated by reward (Professor Abraham Maslow - Hierarch of Needs Theory; Frederick Herzberg - Two Factor Theory of Motivation; Incentive Theory of Motivation; Humanistic Theory of Motivation). Academia is a lucrative industry in USA and Europe where it is now normal for leading academics/researchers to become millionaires just like entrepreneurs, live jet-set life styles and become celebrities through exceptional earnings from their sale of unique expertise. If a correct substantial innovation/research reward system is not crafted as policy in government, colleges and universities, Oman will continue to have a long innovation/research wish list which will never be realized in practice, conference after conference, meeting after meeting and plan after plan. The simple question to be answered is, 'How do they do innovation in highly innovative countries and what is the reward package for innovators and researchers?'

## **4.0 Discussions and conclusions**

### **4.1.1 Omanisation**

Omanisation is the most controversial, topical and divisive topic in Oman and has had its twists and turns, successes and failures. In government it has been very successful, as well as in banks and municipalities. In the private sector it has been on a slow pace behind what government prefers and likes for Omanisation or localization of jobs and skills. Many reasons are there for this scenario. Industrialists say some local Omani people are uncommitted, undisciplined and sometimes lacking in required skills and experience. This is partly and mostly a lie advanced mainly by some industrialists taking a simplistic approach to complex industrial issues. Why should local labour not be able to do jobs done by other races with the same qualifications surely? Another factor which disadvantages Omani graduates is the issue of experience. Surely experience is not bought from the supermarket and someone needs to be given a chance to gain experience. That chance is to be given an opportunity to work in an organization without experience so as to get the experience. In all developed economies and NICs and even 3<sup>rd</sup> world countries it is normal and compulsory for college/university students to do internship as well as to compel companies to engage graduate trainees as a natural manpower development strategy. This is mostly not the case in Oman, with a few exceptions. Experience comes from internship as well as graduate traineeship opportunities. The Oman government must institute measures that legally require all firms to employ a quota of Omani graduate trainees in different disciplines every year to work in each company for one to two years to gain the experience and be labour market compliant. Without doing that Omanisation will continue to hit a man-made brick wall. This is simple common sense manpower development strategy. Firms want experienced people then surely they should create the experienced people through compulsory graduate traineeships. This is the strategy that many countries the world over have used to localize jobs. The only sensitive and difficult industries to localize 100% are hospitals and higher education, which no country in the world has managed to localize 100%, with the exception of pariah states Cuba, Iran and others but with disastrous results, and had no alternative due to sanctions and terrible isolation. These are not economic role models for the world but good references and examples of failure.

It should be quite clear to everyone that change management always faces resistance because of vested interests, fear and uncertainty; this is quite normal and natural and cannot be

an exception in Oman. Radical change management is painful but results are ultimately realized despite resistance in some quarters. Omanisation has been very successful and it is now a question of consolidation, corrections, refinement and accepting mistakes where these have been made. Denial where mistakes have been made would be the biggest enemy of Oman.

#### **4.1.2 Localisation challenges, innovation gaps and improvements**

Progressive countries embrace diversity in these industries for globally acceptable quality and checks and balances, but localization will be quite high too. Lack of global diversity and competition in its universities has been highlighted as the major reason why China is moving slower to march Europe and the USA in research output and economic dominance supported by globally branded goods and quality of education. This is now being corrected through international recruitments of students and academic staff in most Chinese universities and colleges as a priority to galvanise Chinese higher education and fuse it with experience from the whole world. It is considered unhealthy academically for students and academics to be isolated from the realities of globalization and competition at colleges/universities as that compromises sophistication and exposure, although researchers are divided on this, with others saying having local students only in classes is better as it preserves culture and avoids cultural contamination. Countries make their own choices.

Higher education had become the basic education of the knowledge economy, Alon & McIntyre (2013: 5-27). Yet in transitioning, emerging and developing countries, resources for higher education, and indeed higher educational systems themselves, remained inadequate. They contended that the institutionalisation of world-class management programmes to produce a continuous and self-renewing stream of intellectual capital and its retention in the emerging economies of the world was possibly the most significant challenge faced by business and management education in the coming generation. Oman faces mainly regional branded powerhouse UAE and others in fighting for scarce skilled labour, investment and tourists. The loss of skilled labour to these countries is called by some, 'The great trek from Oman in search of gold and a dream life'. Hospitals in Oman are the most affected as they lose specialists and compromise on innovation, further pushing people to seek specialized medical services/treatment abroad.

#### **4.1.3 Diversity, innovation and globalisation**

The wealth of diversity that comes with international academic staff and students gives the necessary 'other angle' to issues and discussions in classes which enriches students and staff and ultimately results in better graduates and national competitiveness. The USA is the most diverse country in the world with almost every nationality represented there and is one of the reasons why it is the largest economy in the world. Crow (2010:17-24) said adherence to the principles that made the USA the world's largest economy was the surest path to continued economic growth and stability over the long run. He said of particular importance were policies that allowed flexibility in labour markets; free movement of capital, unimpeded by excessive regulation; tax rates that minimized disincentives for the development of human and physical capital; and liberalization of international flows of goods, services, and capital. Oman would need the same strategies for exceptional growth in their economy and investment just like any country aspiring to excel on the globalization front. Diversity has also brought economic wonders to UAE and Qatar. It must just be remembered that the market is cruel and does not wait for good management and good policies.

The gap between graduate skills portfolio and industry skills requirements is sometimes quite substantial as confirmed by government which is working hard to bridge this gap. But this

is sometimes blown out of proportion by people with vested interests. Omani graduates are quite good generally as proven by their share and competence in professional jobs already in banks, government, firms and local authorities. Many factors explain the gap between graduate skills portfolio and industry skills requirements including sometimes quality of students recruited into colleges and universities (as the best students go to Sultan Qaboos University, the mainstay of Oman academia), English language limitations on students when English is the medium of instruction, lack of internship and production of theorists without practical job market application skills, the dilemma of some Omani colleges/universities. Without internship a country produces paper tigers with distinctions but who cannot do jobs practically and take time to learn the industrial culture and practices. Theory needs to be bridged with practice. Industries want productive people from day one and that is only possible with internship and graduate traineeship only and has been a missing link pitting industry and government in the ongoing Omanisation drive, without pointing to this missing link. Oman must check and adopt college/university best practice from countries where it is recruiting expatriate labour as that labour has been proven to be industry compliant. This is simple common sense which does not require rocket science. The reason why foreign labour is proven to be compliant versus local graduates lies in curriculum and practices – like internship/graduate traineeship. Oman course outlines/curriculum is the same as any other from Europe/USA, so why these discrepancies? Even books used in Oman institutions are written in Europe, USA and Asia, so why should the end product, the graduate be different? Oman must identify the missing link in the value chain – internship and graduate traineeship. Oman colleges/universities are high-tech and compare well with first world institutions 100%. Then why should graduate compliance continue to be an issue? Food for thought, and introspection is required. Denial does not solve problems but perpetuate them; corrections eliminate problems and normalize performance and satisfy beneficiary expectations, that is industry.

What curriculum is followed by these super performers in their countries which is not present in Oman curriculum and college/university curriculum? That provides the golden answer to the million dollar question. Practical corrections are required to put this matter to rest. The Omanisation debate is three factored – the informed professional's and firm's point of view which is mostly looking at productivity, feasibility, substitution effect, sustainability, profitability, quality, benchmarking, cost control, practicality, organizational competitiveness and continuity; the unsophisticated villager/unemployed person's point of view which is mostly based on blame and not fact and the *'get that job as quickly as possible syndrome which may backfire and may not be in the best interests of the firm, organization and country'* and lastly Government's point of view looking at job localization, local human capital formation, job creation for Omanis, reducing local unemployment, reduction of foreign remittances as expatriate numbers come down, making constituencies happy, self-sufficiency, national competitiveness, international relations, benchmarking and maintaining standards. Planners need to be very careful in implementation in high job skill categories and avoid the Qatar mistake of recent years where Qatarisation brought engineering works to a complete standstill countrywide – telecommunications, water and electricity systems, and Indian engineering expatriates/experts had to be airlifted back as an emergency measure much to the embarrassment of the country and society. Omanisation in Oman has been done fairly well and with good caution, and hope it continues like that.

Job satisfaction is a crucial factor that determines retention of employees in all industries, Dhanapal, Alwie, Subramaniam & Vashu (2013:128-139). They said in the 21<sup>st</sup> century, with the abundance of job opportunities available to employees, a constant challenge faced by upper

management is in the retention of existing employees. Researchers have identified a non-exhaustive list of factors that determine job satisfaction which include factors such as workload, pay, age, gender, educational background, working environment, job security and management, (DeVaney and Chen, 2003; Miller, 1980; Souza-Poza, 2000; Weiss, 2002; Udechukwu, 2007). In their research Steven & Mathias (2008:262-280) found out that innovation had long been considered an important factor for creating and maintaining the competitiveness of nations and firms and that common knowledge held that innovation causes an increase in exports. They found that innovation as measured directly by 'new products', 'new production process' and 'improvement of existing products' are important determinants of exports by developing countries like Vietnam. Sinha (2007:569-592) quoting Anholt notes that marketing is at the heart of what makes rich countries rich and that building national identity means ensuring that its brand-image is the way it promotes and represents and shares its culture.

#### 4.1.4 What Educational Institutions Offer to Industry's HRM Innovation?

- They can understand, make analysis of Bilateral, Multilateral and Global HR Issues & adopt global practices
- Help to adapt various Corporate HR Practices
- Develop the leader by acquiring Leadership Qualities
- Higher Educational Institutions can associate with industry to impart professional education to benefit the Industry & Business and advocate Corporate Practices to benefit Employees.
- It can also help the people in facing the ever growing competition and prepare them to function in a fast changing globalized environment
- HEIs can also promote effectiveness in Human Resource and enable the employees in developing observable skills/leading valuable Human Resource.
- HEIs Help organizations in promoting growth & development and facilitate them in overcoming the Operational Problems strategically.
- HEI can also do world class consultancy projects and in-house training for firms.
- Leading professors can also act as country think tanks and advisors to government and the corporate world. There are country think tanks in Business & Economics, IT, Engineering, Medicine, Agriculture, Sociology and many other key areas. The United States of America uses this model where many leading faculty have been appointed as part time advisors to the president as well as various Government Ministries in their areas of expertise and they are paid handsomely. This is one area Oman has to look at seriously. Talent is there in its colleges and universities but government and industry is not tapping into this talent fully thus prejudicing themselves of much need new ideas and a cross breed of ideas. Professors are not people for the classroom to meet students for lectures only and conferences/workshops; *they are the single most important resource that any country possesses*. Professors are the brains and headlights of nation states and industry. Any development equation/model without them is incomplete. The researchers believe that it is now time for introspection and corrections for excellence in Oman.

The home nation influences the ability of its firms to succeed in particular industries, with the success or failure of thousands of struggles in many industries determining the state of a nation's economy and its ability to progress, said Porter. It has now been established by other researchers that national culture, funding and policy consistence are major issues in innovation success as well as good governance, transparency, sanctity of property rights and being global



citizens open to the world. The reward system, funding, quality, competence, commitment and creativity of leadership either at firm level or national level is a key factor of success or failure in innovation, creativity and marketing. Colleges and universities can no longer function as closed systems and ivory towers divorced from mainstream society. Innovation requires smart partnerships between academia, government and industry. It is a win-win game and never a winners take all. More Science & Technology Parks are required in Oman to bring together industry, academia and government in smart partnerships for development.

## 5.0 Further research

It is our belief that policy makers in the private and public sectors will use results of this research to specifically improve innovation practice in Oman and generally HRM, marketing development, branding, employment creation, competitiveness of existing firms and general professionalism in HRM and marketing. Our limitation was that this was research based on extensive literature review only which may not uncover all factors affecting innovation in Oman. Other researchers will pursue further research in this area especially field research to dig deeper into these issues.

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#### APPENDIX 1

<http://www.globalinnovationindex.org/content.aspx?page=press-release>

WORLD INNOVATION INDEX RANKINGS

| Top Ten 2013 ranking |   |    |                       |
|----------------------|---|----|-----------------------|
| 1                    | Switzerland ( <i>Number 1 in 2012</i> ) | 6  | Finland (4)           |
| 2                    | Sweden (2)                              | 7  | Hong Kong (China) (8) |
| 3                    | United Kingdom (5)                      | 8  | Singapore (3)         |
| 4                    | Netherlands (6)                         | 9  | Denmark (7)           |
| 5                    | United States of America (10)           | 10 | Ireland (9)           |

Figure 2 - Cornell University, INSEAD, and the World Intellectual Property Organization (WIPO, an agency of the United Nations, UN).

| 2013 Top Rankings by Region             |                       |                          |
|---|-----------------------|--------------------------|
| Rank In Region                          | GII 2013 Overall Rank | Country Name             |
| <b>Central and Southern Asia</b>        |                       |                          |
| 1                                       | 66                    | India                    |
| 2                                       | 84                    | Kazakhstan               |
| 3                                       | 98                    | Sri Lanka                |
| <b>Sub-Saharan Africa</b>               |                       |                          |
| 1                                       | 53                    | Mauritius                |
| 2                                       | 58                    | South Africa             |
| 3                                       | 89                    | Uganda                   |
| <b>Southeast Asia and Oceania</b>       |                       |                          |
| 1                                       | 7                     | Hong Kong (China)        |
| 2                                       | 8                     | Singapore                |
| 3                                       | 17                    | New Zealand              |
| <b>Latin America and the Caribbean</b>  |                       |                          |
| 1                                       | 39                    | Costa Rica               |
| 2                                       | 46                    | Chile                    |
| 3                                       | 47                    | Barbados                 |
| <b>Northern Africa and Western Asia</b> |                       |                          |
| 1                                       | 14                    | Israel                   |
| 2                                       | 27                    | Cyprus                   |
| 3                                       | 38                    | United Arab Emirates     |
| <b>Europe</b>                           |                       |                          |
| 1                                       | 1                     | Switzerland              |
| 2                                       | 2                     | Sweden                   |
| 3                                       | 3                     | United Kingdom           |
| <b>Northern America</b>                 |                       |                          |
| 1                                       | 5                     | United States of America |
| 2                                       | 11                    | Canada                   |

#### APPENDIX 11

##### OMAN/UNITED ARAB EMIRATES COMPARISON

##### OMAN TRADE STATISTICS - IMPORTS, EXPORTS & GDP

##### OMAN 2012 IN BILLIONS OF US\$

| OMAN                             | BILLIONS |         |      |
|----------------------------------|----------|---------|------|
| GDP per capita = US\$26,519      | EXPORTS  | IMPORTS | GDP  |
|                                  | 48.4     | 23.4    | 81.8 |
| UNITED ARAB EMIRATES             |          |         |      |
| GDP per capita = US\$ US\$48,158 | EXPORTS  | IMPORTS | GDP  |
|                                  | 300.6    | 220.3   | 360  |