



ENTREPRENEURSHIP AND SUSTAINABILITY ISSUES
ISSN 2345-0282 (online) <http://jssidoi.org/jesi/>

INNOVATION AND ENTREPRENEURSHIP IN SULTANATE OF OMAN – AN EMPIRICAL STUDY

Alexandrina Maria Pauceanu

²Dhofar University, College of Commerce and Business Administration, P.O.Box 2509, Salalah, 211, Oman

E-mai: apauceanu@du.edu.om

Received 16 March; accepted 20 July 2016

Abstract. Located in the south-eastern corner of Arabian Peninsula, the Sultan of Oman is one of the fastest developing economies having a rich history and culture of exploration abroad. The country is categorized under the high-income economies and is placed in the top 50 leading nations in peace. Despite neighboring countries that are hugely endowed with oil and gas resources, the nation's economy is hugely diversified and oil forms only a small fraction of the economic activities, which also include fishing, light manufacturing and agriculture among others. In addition, a stable government coupled with relatively low taxes makes Oman an attractive investment destination for entrepreneurs and local as well as foreign investors searching for tax havens. The country also recognizes the importance of technology and innovation to economic development, which is foreseen by the research council. The research council undertakes an important duty of ensuring that research in the country is well developed. This research looks at some of the factors that impact on the individual decision to venture into entrepreneurship as well as a qualitative analysis of the link between entrepreneurship and innovation. The key findings of the empirical study will be examined in detail in bid to analyze the relevance of the findings in relation to existing theories and research in the field.

Keywords: Entrepreneurship, innovation, empirical study, SMEs, Sultanate of Oman

Reference to this paper should be made as follows: Pauceanu, A. M. 2016. Innovation and entrepreneurship in Sultanate of Oman – an empirical study, *Entrepreneurship and Sustainability Issues* 4(1): 83-99. DOI: [http://dx.doi.org/10.9770/jesi.2016.4.1\(8\)](http://dx.doi.org/10.9770/jesi.2016.4.1(8))

JEL Classification: JEL: M13, R11

1. Introduction

Entrepreneurship and innovation are two closely related constructs used mainly in the business environment. Although they may not be used interchangeably, the terms revolve around the same concept. Innovation involves applying creativity to develop an idea or unique solutions to problems. On the other hand, entrepreneurship involves turning the idea or innovation into an actual product. According to Ibnu Khaldun (as cited in Karatas, 2012), "An entrepreneur is considered as a knowledgeable person who is instrumental in the development of a

city-state where enterprises come up.” As such, entrepreneurship can be said to be a driver of innovation to an extent that without the application of entrepreneurial skills, an innovation may be rendered unattainable. Entrepreneurship and innovation plays a major role for economies, more so in developing countries, as engines and drivers of economic growth and development, empowerment and social adjustment. In order to attain meaningful development, it is necessary that an economy attains high flexibility and innovative abilities of small and medium enterprises, inculcate a culture of entrepreneurship among the youth and offer support to women entrepreneurs.

The creation of new businesses and the elimination of less efficient firms are important policy strategies in the dynamism of the economies of modern times (Sarnad, 2012, Laužikas et al. 2015; Tvaronavičienė 2016). Through the establishment of new firms, countries are able to attract resources to new activities, which have the potential to grow and prosper within a short time and offer solutions to some of the major challenges facing economies such as unemployment. New firms are often required to show an innovative edge in order to survive the stiff competition they often face from more developed and well-known businesses. This is particularly so in younger as well as high technology industries. Governments have been on the forefront in the recognition and appreciation of the fact that social entrepreneurship presents a major avenue for the elimination of poverty and the empowerment of the disadvantaged groups in the society.

Today, economies and world leaders are making major efforts aimed at ensuring that individuals are encouraged and supported to develop and implement new ideas, governments are reviewing tax and trade policies with the intentions of ensuring efficiency and ease of conducting business to attract foreign investors and encourage innovation. Global Entrepreneurship Summit is conducted annually in the spirit of promoting and encouraging a culture of entrepreneurship among people. Inventions and innovations ensure that better and efficient ways of conducting activities are available. In addition, they have gone a long way in ensuring that human life is made easier by the day (Sarnad, 2012). In a bid to encourage innovation and inventions, research institutes and centers have been developed in many countries around the globe to facilitate the process of knowledge discovery. The creation of a business environment which encourages and supports entrepreneurship and enterprise development in which innovative young firms can operate and develop and grow fast ones they have established in the industry requires a wide range of mutually reinforcing and sound policies Drucker (2010) this are the main fundamental issues that affect the economy as whole and they need to be supported and developed further. The increasingly growing role of innovation and entrepreneurship can be seen more so with the recent surge in the amount of research and subsequent publications addressing the importance and the dimensions of innovation (Drucker, 2007). Innovation is a critical weapon for entrepreneurs attempting to find new opportunities of producing better good or services.

Even with a conducive environment for individuals to venture into entrepreneurship, not all individuals will seize the opportunity to enter into entrepreneurship. According to Al-Harasi (2014) and Kozubíková *et al.* (2015) there are certain political, geographical as well as personal traits that drive individuals into becoming entrepreneurs. Although most researchers have focused on exploring the potential of economic growth and development through innovation and a culture of entrepreneurship in among the future generations, little has been done in the way of exploring the factors that lead individuals into becoming entrepreneurs (Mačiulis, Tvaronavičienė, 2013; Fuschi, Tvaronavičienė M., 2014; Ignatavičius et al., 2015, Matetskaya 2015; Vojtovič et al. 2015).

Oman is among many countries that have made tremendous efforts aimed at promoting entrepreneurship and innovation. With a population of 3.9 and a per capita income of approximately \$21,380, the Sultanate has a tremendous sustainable economic growth and outstanding political environment since the early 1970's when His Majesty, Sultan Qaboos took charge of the throne. The remarkable achievements in economic growth can be attributed to earning from the export of oil and gas. The earning from these two important mineral resource

contribute to 51.6% of the country's overall GDP. Despite these achievements, Oman's development progress is faced with a massive risk, in the short-term the country has been unable to generate sufficient employment opportunities for its youth, mainly composed of fresh graduates making their way into the labor market (UNCTAD, 2014).

In addition, the long-term economic position of the economy is place at a huge risk as a result of decreasing oil reserves as well as the rising costs of exploration, which has been triggered by volatility of oil prices. Moreover, questions have been asked about the long-term environmental effects of continuous search and mining of oil. Currently, the country is ranked in top 20 countries with the highest carbon emission per capita (UNCTAD, 2014).

The Government of Oman, led by His Majesty Sultan Qaboos has worked tirelessly hard in bid to intervene in the process of development and to give the economy a new development trajectory that will be beneficial to the citizens of the Sultanate. The 8th five-year development plan (2011-2015) has outlined some major goals that have been put forward by the government to deal with some of the problems experienced especially during the past decade. The targets include: economic diversity, Omani citizens career and skills development through training programs and scholarships, active support of SMEs creation and development and foreign investment promotion. Policy makers in the region have clearly realized the need to hasten the structural transformation process of the country so as to be able to create job opportunities for the Oman nationals. This can be seen in the recent move by the government to increase the number of Oman labor force in the labor market in what has been referred to as the Omanisation strategy (UNCTAD, 2014).

However, although this move may provide a short term solutions to the current problems experience in the country, a better alternative and sustainable solution to the country's economic growth and development obstacles is attaining transformative and diversified growth underpinned under the key pillars of entrepreneurship development as well as an effective system of innovation. The government of Oman has made several attempts aimed at encouraging entrepreneurship in the country. The various policies include conducting entrepreneurship education and training with major focus being placed in the education of women, creating an environment of economic freedom (Bartoš *et al.*, 2015). Further, the government established an innovation council with the intention of building and encouraging a research culture. The council is mandated to formulate a nationwide research strategy, establish a research database, and establish science and technology parks (UNCTAD, 2014).

Although the development of an effective national innovation system can bring about positive gains in the economy such as improved and diversified economy, efficient production systems and processes as well as highly attractive and quality jobs, some constraints exists although to the employment opportunities generated by an diversified innovative-based system. These constraints include the global innovation competition, changes in demographic trends, which shape the characteristics of transformation (UNCTAD, 2014; Urbaniec, 2015).

The presence of a stable government, peace, low tax rates, and the ease of conducting business in the country are seen as the major contributing factors toward the thriving entrepreneurial growth as well as increasing direct foreign investment. The governments equally take cognizance of the important part that women can play in the economy. As such, efforts have been made towards encouraging women entrepreneurs especially by way of offering training and increasing financial support for business initiatives run by the women (UNCTAD, 2014).

Significance of the study. This research paper seeks to establish some of the major factors relating to characters of individuals and how they impact on the individual choice to become an entrepreneur. Data based on structured questionnaires was collected from 67 individuals who were both entrepreneurs and future entrepreneurs (being in the process of setting the details for their future business). A quantitative analysis was then conducted to

determine the factor contribution to the decision by individuals to become entrepreneurs. In addition, we delve into examining the link between entrepreneurship and innovation in Oman by applying a qualitative approach aimed at exploring the presence of innovation in entrepreneurship actions. To achieve this, interviews were carried out with managers of major entrepreneurial innovative firms. The findings are discussed vis-à-vis the existing theories and literature to examine the value of the findings. The findings of this empirical study will provide data and base for further researches in the field and will grant a larger understanding of the situation from the point of view in regard to the perception and ground realities in Sultanate of Oman.

2. LITERATURE REVIEW

This part of the research critically examines the existing theoretical and empirical literature and has been conducted in way of explaining innovation and entrepreneurship. Research in the field of innovation and entrepreneurship has presented a major challenge to researchers and scholars. According to Zeffane (2012), the paradoxical linkage and the tension associated with the management of creativity and innovation presents a challenge in terms of both explanation and theorizing.

Theories of innovation. Basically, there are three main facets of literature in economics that we examine here. These theories are considered applicable to company level innovation including institutional, industrial, and evolutionary perspectives. Firm level innovation is known to consist of both internal and external elements. The first three theories are set to examine the key aspects of the government environment in a country. These include the legal framework, property rights, size of the firm, and specific characteristics of a nation and their effects on the technology landscape within the country.

Institutional Economics. According to institutional economics, Externalities are critical aspects of innovation. In this branch of economics, rights to property are viewed to play an important role of internalizing externalities, on the innovation front; they are designed to ensure that earnings from innovation and other intellectual property are enjoyed by the innovator. This is important in providing encouragement to continue with the search for knowledge for the purpose of inventing new ideas, products and processes (Aghazamani & Roozikah, 2010). Further, the consequences of innovation extend beyond the introduction products or techniques to include information that has attributes of public goods, non-rivalry, and non-excludability. The two characteristics of information make the benefits from innovation impossible to value accurately, which means that research and development chances that would be socially profitable are not taken advantage of due to the notion that they are privately unprofitable. To be able to eliminate these bottlenecks to innovation, intellectual property rights should to be well outlined and implemented (Aghazamani & Roozikah, 2010). Other interventionist measures, which the government can employ, include offering tax holidays and tax breaks on major research and development efforts as well as using performance contracts.

Industrial Economics. This came as a result of the work of Solow (1957) when he argued that the identification of technological is a critical factor in ensuring growth. His work led to the development of huge body of literature concerning the process of coming up with and transmitting new information within an organization. In particular, Arrow's (1962) in his study examines the processes of allocating resources to the most productive agents in the economy under the conditions of uncertainty. It is argues that a perfectly competitive economy is most likely to be faced with the problem of under-investment in the important process of invention and research because it is considered to be much more risky, limited appropriation of products and because of rising returns in use. In addition, he argues that monopolistic tendencies are major impediments to innovate further, as opposed to perfect competition. These arguments echo the view that there is need for government to intervene by way of financing research and development.

Being a costly and risky undertaking, research, and development should be left in the hands of industrial organization of large monopolistic firms, which have the ability to utilize economies of scale, diversify, and develop market position as argued in research work conducted by Scherer (1965). Uncertainty is also a key issue: the process of innovation hugely relies on the technological endowment of a business (Farsi & Moradi, 2012). In this regard, big organizations with substantial resource endowment for innovation are well positioned to lead the way on the innovation front. Firm size is thus a critical aspect that should be taken into account when examining a firm's innovation ability.

Evolutionary Economics. Evolutionary economics offers a difference angle of view that is a variation of perspective put forward by the neoclassical school of thought. As is the case in the Schumpeterian view that the economic world is nothing more than succession of disequilibria, explicitly dynamic and evolutionary, although considering innovation as an endogenous process as opposed to an exogenous force operating on the economic system. Therefore, it is apparent that the conditions under which an organization operates is taken into consideration (Estay and Ackter 2013). According to this perspective of economic thinking, the idea of diversity, concerning various organizational properties and decisions and variations in the conditions under which an organization operates, is fundamental to the description of inter-industry and inter-country variations. Considering innovation system in its entirety explains a better part of inter-country differences in innovative performance (Turker, 2009).

Entrepreneurship Theories. *Ibnu Khaldun (Abdul Rahman Mohamed Khaldum) theory*

Basing on Ibnu Khaldum arguments concerning an entrepreneur, a person engaging in the act of entrepreneurship is viewed as an individual with huge body of knowledge and plays a key role in the progress of a city-state characterized by the emergence of small businesses.

Cantillon's theory (1755 as cited in Dooly, 2005)

An entrepreneur, according to this theory is as an individual who assumes risk and plays the role of bringing supply and demand into an equilibrium condition into the economic system. Assuming a neo-classical basis, this role is considered to be that of residual claimant. This is demonstrated by a business individual who rents labor and capital from employees and owners of land in an environment characterized by unknown demand or production.

John Stuart Mill (1848) –

This economist, together with Jean-Baptiste Say, contributed to the spread of the term *entrepreneur* at academic level. In Mill's views, an entrepreneur is the main vector in the private organization/enterprise and it is regarded as the fourth factor of production which creates the entrepreneurial process. Without the entrepreneur to unify all the resources (the other factors of production), the economic process and the enterprise cannot exist.

The Social Enterprise School

In the views of this theory, the entrepreneurship should be seen as a “social enterprise initiative”. It points to companies, in various sectors, that utilize revenue approach to follow ” a double or triple bottom line, either alone (as a social sector business) or as part of a mixed revenue stream that includes charitable contributions and public sector subsidies” (http://www.socialent.org/Social_Enterprise_Terminology.htm, accessed in September 12th, 2015). Social Enterprise School insist on earned income activities by nonprofit entities. It also considers the market-based solutions for the social issues as well as economic entities that generate profit, to be donated for the purposes of social venture or purpose.

Empirical literature. According to Mackay (2011), the role of SMEs is critical to the economic progress of most developing economies. Empirical evidence from Singapore shows that 98% of all enterprises in the country are young, micro or SMEs that have contributed immensely to the employment of about 70% of the workforce

and contribute close to 50% of value added to GDP (Farsi and Moradi, 2012). According to a 2012 study conducted by McKinsey report, in South Korea, SMEs constitute close to 99% of all enterprises that offer employment opportunities to about 87% of the workforce. In Morocco, SMEs account to approximately 93% of all registered business, 46% of workforce and 83% of the country is GDP. Graeme and Gary conducted a study on the catalytic environment for sustainable enterprises in Sultanate of Oman; they concluded that the political stability, good governance, social dialogue, the respect for universal human rights and international labor standards are some of the key factors that contributed immensely in providing an enabling environment for the growth and development of successful enterprises in Sultanate of Oman.

Guan and Ma (2008) described major entrepreneurial innovative capabilities. In their discussion, they identify seven major aspects. These are: learning, research and development, manufacturing, marketing, resource exploiting ability, organizational capacity and strategic capabilities adaptable to competitive environments. Moller (2008) consider that entrepreneur's capabilities are those of "managing strategic relationships, business nets, efficient core-value production, delivery, process excellence, and flexibility, vertical integration through partnerships and radical innovation aimed opening new business opportunities".

Brush (2009) examined the major factors that lead to entrepreneurial success and he called the 'entrepreneurial success factors'. They include making efficient use of three major strategies: developing a clear vision, managing cash creativity or attempt to 'bootstrap' and persuading other to join the venture by employing social skills. According to Andrew (2011) the link between entrepreneurial abilities and commitment is a complicated one, since both constructs must be present in order to lay the basis for enterprise establishment.

Hitt (2009) examined the nexus the between knowledge and technology in the process of value generation. He argued that technology is an efficient system and that change in technology can be comprehended by investigating this knowledge development. The facets of knowledge, which he argues are tacit and codified, facilitate the understanding of the association that exists between technology knowledge and the ability to generate value in a dynamic environment. Cameron (2010) is of the view that the transfer of innovation and technology are the two potential sources of sustainable growth in productivity and he further posits that research and development, international trade and human capital are the major drivers of productivity growth.

Dobni (2008) and Bilevičienė et al. (2015) discuss innovation as a recipe for entrepreneurship. They argue that innovation must be created and sustained, he further emphasizes that an innovative environment is a key management oriented way of managing employees as it can contribute immensely to the development of employee career and present many opportunities for businesses as well as employees.

In author's opinion, creativity is the first part of a successful and sustainable entrepreneurial process, followed, as a second step, by innovation. Creativity is not explored enough in theory and it is not discussed as being a major promoter of innovation. A creative entrepreneur is a successful one, a visionary and dedicated to make the things in a different manner, in own creative manner, to ensure the sustainable development of the business and its components.

3. METHODOLOGY AND ANALYSIS

This chapter consists of qualitative as well as quantitative analysis of two key aspects of entrepreneurship and innovation in Oman. First, a qualitative analysis aimed at understanding the association that exists between innovation and entrepreneurship in organization in Oman. The data was subjected to inductive logical reasoning and results were discussed and analyzed. Secondly, a quantitative analysis was conducted on some of that factors that impact on the entrepreneurial intentions among individuals. The approach used in our research was to issue

questionnaires to a random sample of 67 people consisting of both entrepreneurs and those who were not yet entrepreneurs.

Empirical study: Qualitative analysis. The literature on entrepreneurship and innovation of Omani firms is still limited despite the development of works on entrepreneurship in Oman in recent years. Basing on the available literature, there have been no studies on entrepreneurship and innovation interaction of firms in Oman. This research was aimed at exploring the presence of innovation in entrepreneurship process and actions of companies in Sultanate. As such, we present the methodology of our research and main results found.

Data collection. Qualitative approach based inductive logic was employed due to effectiveness in the context of exploratory research. As a result, basing on the recommendations of many researchers, the data gathering method used in this research is based in semi-structured interview in which we used an interview guide.

Sampling. Following extensive research and recommendation of from a number of individuals, we selected eight organizations in Oman for the purpose of this study.

Table 1. organization details

Business/ activity	Size(number of employees)	Year of establishment
Distribution	10	1963
Freight	7	1978
Printing	5	1972
Food processing	12	1969
Insurance	8	1964
Consulting	7	1979
Software solutions	5	1982
Holding group	75	1967

Source: xxxxxxxx (9 pt)

Interviews with senior managers from each organization were conducted. After the interview, the results were selected, sorted, and centralized. Decisions were made by the researcher on the type of data that was to be obtained from the codified responses. The researchers were particularly searching for information in regard the respondents view on the need for innovation in entrepreneurship.

Results. Perceptions on entrepreneurship and innovation behaviors in table 2 summarize the key responses obtained from the interviews.

Table 2. Summary of interview responses

Interviewee/industry	Responses
<i>Interviewee 1- software solutions</i>	We started operations as a small business and we are determined to grow even bigger, as startups we experience a lot of difficulty that can be discouraging, but being an entrepreneur, one has to cope with risk and the only way to survive and to succeed is to innovate and come up with something new.
<i>Interviewee 2- printing</i>	For companies aspiring to survive more so in the competitive environment, it has to continuously innovate and be creative. My initial idea has evolved and improved ever since I started and has played major role in my survival in the industry. When began operating in this business, I was in a highly demanding segment.
<i>Interviewee 3- distribution</i>	In my view, innovation is not necessary for one to create a new venture but it is necessary to be innovative in order to survive in the industry. Innovation has

	made it possible for me to establish myself in the industry and gain substantial market advantage.
<i>Interviewee 4 - holding group</i>	In my view, innovation is an ongoing activity which entrepreneurs such as myself should spent much time and resources in in order to ensure that our products and services do not become irrelevant especially in today's very demanding and competitive market.
<i>Interviewee 5- consulting</i>	I have been in this industry for a very long period of time and I have gained enough experience in the industry. Throughout the existence of my organization, we have learnt that the industry is very dynamic and keeps growing each day. Therefore, experience has taught me that in order to compete favorably in the market, you need to invest a junk of your resources in research so that you may be able to offer something new and different in the market.
<i>Interviewee 6 - Insurance</i>	This is a very unforgiving sector. You have to be very innovative in order to exist in this sector. Each day, a competitor comes up with something new that excites the clients and they shift from one company to another. As such, you always have to think of something new and better than what other companies in the industry are offering.
<i>Interviewee 7 - Food processing</i>	It is impossible to be competitive if you are not always thinking of better and more efficient ways of doing things. In my view, only the most innovative individuals and organizations last long in this industry. I have to change my way of doing thing more often and even encourage my employees to attend seminars and trainings in order to make them innovative and competitive. Innovation is a prerequisite in this industry.
<i>Interviewee 8 - freight forwarder</i>	For us in this business the process is always standard. However certain clients demand specialized services which make it necessary that you become creative and provide better services.

Empirical study: quantitative research. This study sought to show the factors that impact on individual decision to become entrepreneurs. According to Al-Harasi (2014) these factors are divided into three. These are personal traits, contextual factors and motivational aspects. As such, the data collected was based on these three categories.

Data collection. Data was collected through the issue of questionnaire to a sample of 67 individuals. The questionnaire was structured in a way that individuals were only required to indicate a mark on the factors that led or made him/her not to venture into entrepreneurship. Random sampling was employed in the selection of individuals into the sample and as such the sample was composed of both entrepreneurs and those who were not yet entrepreneurs.

Survey's aftermath. As a result of our research survey, the obtained centralized results are presented below:

Table 3. The gender composition of our research study survey

Responses	Count	%
Male	32	47.78
Female	35	52.22
Total Responses	67	

Table 4. Personal traits

Responses	Count	%
Self confidence	7	10.44%
Risk level	14	20.89%
Need for success	21	31.34%
Innovativeness	18	26.86%
Autonomy	6	08.95%

(Did not answer)	1	1.49%
Total Responses	67	
More than one answer per participant possible. The figures for % may be greater than 100 due to the possibility for multiple answers		

Table 5. Contextual Related factors

Responses	Count	%
Cultural	10	14.93%
Social	19	28.36%
Economical	31	46.26%
Political	7	10.45%
Total Responses	67	
Multiple answers per participant possible. The figures for % may be greater than 100 due to the possibility for multiple answers		

Table 6. Motivational related factors

Responses	Count	%
Need to succeed	34	50.74%
Desire for Security	20	29.85%
Desire for status	13	19.40%
Total Responses	67	
Multiple answers per participant possible. The figures for % may be greater than 100 due to the possibility for multiple answers		

4. FINDINGS AND DISCUSSIONS

The findings from qualitative section of the research are in tandem with other studies conducted by previous researchers. For instance, Zhao (2007) did a qualitative examination on a number of organizations in Australia with the aim of analyzing the nexus between entrepreneurship and innovation. As a result, he came up with three main propositions about the link that existed between this two constructs as well as other environmental factors.

First proposition: innovation and entrepreneurship are interlinked due to the fact that entrepreneurship opportunities are results of innovations while entrepreneurs make it possible for innovations to succeed by making it possible to realize the economic value of innovations.

Second proposition: entrepreneurship takes advantage of creative ideas and innovations to expand and grow further. As such, the two constructs are dynamic and complete processes that are not limited to the initial stage of the new venture.

Proposition Three: The development and interaction between entrepreneurship and innovation make it possible successful commercialization of innovation.

Based on the findings above, it is clear that proposition one is true. A significant number of the managers were of the view that there existence in the specific business facet and in different industries was as a result of creative ideas and innovation. In addition, they were able to survive in the industry only through continues innovation and ideas that focused on developing the product further or coming up with new efficient ways of doing things. Similarly, the second proposition is also true according to the study. Innovation is considered a continuous and dynamic process by a significant number of the managers in the organizations. In their view, a business organization needs to evolve in terms of ideas over its entire life in order to compete favorably and establish a significant position in the market. In addition, continuous innovation is inherent in all economic units regardless of the industry or their size. The progressive pursuit of new ideas and new ways of conducting business was considered a major determinant of the performance of the organizations.

The study was not able to investigate the relevance of the third proposition due to the limited time that was available to conduct longitudinal analysis of the link between innovation, entrepreneurship and other environmental factors in different times. From the quantitative study conducted, it was observed that the decision to venture into business was determined by a number of factors which were loosely categorized into the three categories, personal traits, motivational factors and contextual factors. The findings can be summarized in the graphs below:

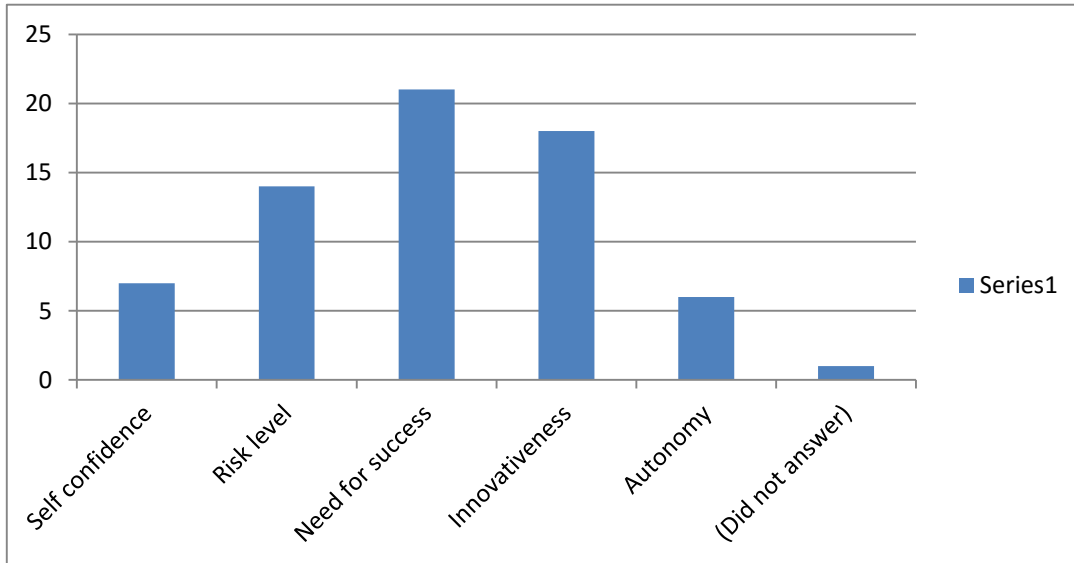


Fig.1. individual traits

As shown in the graph, a significant percentage of the respondents were of the view that the need for individual success was the major drive towards being entrepreneurs. Another factor that had significant impact on individual decision to venture into entrepreneurship was observed to be the risk levels which the individuals were willing to assume. In addition, the innovative abilities of the individuals played a significant role in making decisions on whether to become entrepreneurs or not.

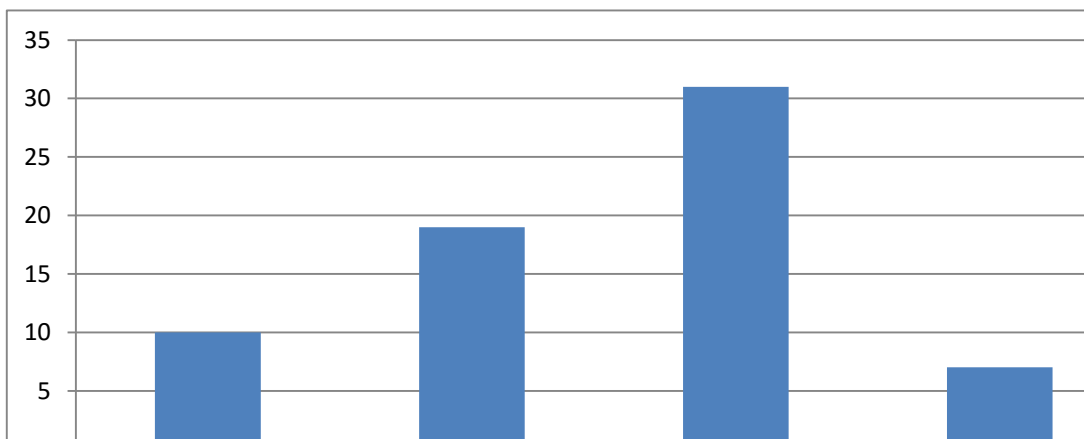


Fig.2. Contextual related factors

Among the factors relating the individuals' contextual environment, the economic environment of the individuals showed significant influence on the individual's decision to become an entrepreneur. The individual

economic environment relates to the financial position and abilities of an individual. As such, it can be established most individuals do not take advantage of the entrepreneurial opportunities that come their way due to lack of finances.

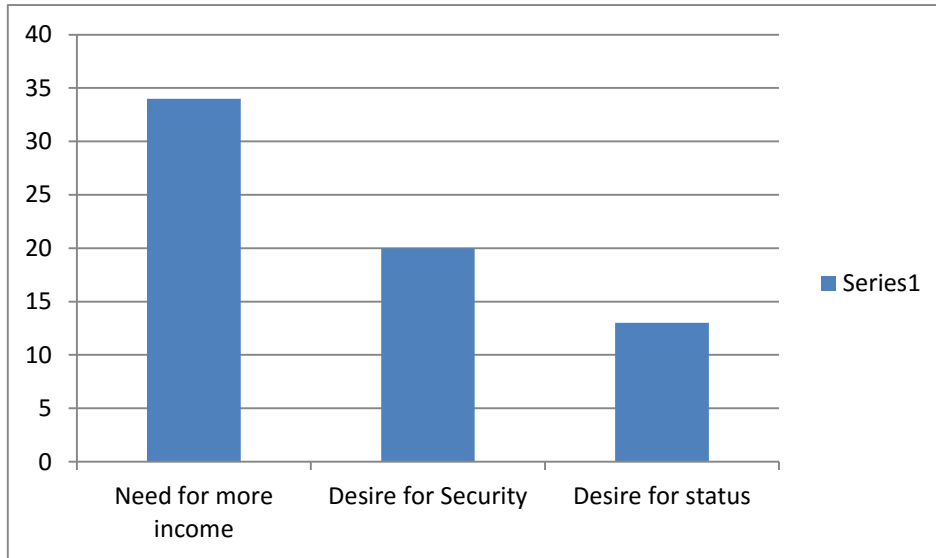


Fig.3. Motivational factors

From the aftermath of our research, it is correct to argue that a significant number of entrepreneurs sort to engage in entrepreneurship activities due to the need to generate more income. This is indeed true as confirmed by the huge reply obtained from the need to succeed trait factor. Although status plays a role in these decisions, it is not as significant as the need for more income and the desire for security.

Entrepreneurship and Omani government policy on SMEs. Sultanate of Oman’s business environment is well-known to be one of the most attractive in the entire Middle East. The country is considered to be a tax haven, the tax system does not issue any financial obligations on personal income, capital gains or housing. A clear and transparent legal system also works to the advantage of businesses; the country has no history of disputes relating to foreign investors and their businesses.

The Oman Chamber of Commerce and Industry for SMEs has been a major institution stimulating an entrepreneurial culture in the country. Through conferences and summits tailored at promoting SMEs in the country. In a summit held in November 12, 2008, the summit embarked into discussing the various types of SMEs, the challenges faced by each of this institutions as well as the need to maintain a sense of cooperation among SMEs funding bodies. The Minister in the Ministry of Commerce and Industry oversaw the formation of a committee comprising of the official at the ministry and the SMEs funding and supporting bodies to present proposal and advice which could be discussed in other meetings that as organized by the Directorate General for Small Enterprises at the Ministry of Commerce and Industry.

The Free Zones. In bid to hasten economic progress in the area, the government of Oman through the ministry of commerce established a number of free trade industries which include mainly: Salalah Free Zone, Knowledge Oasis Muscat (KOM), Sohar Free Zone, Al Mazunah Free Zone. Each of these free zones has its own incentives that have proven to make them more attractive to investors. For instance, within the Salalah Free Zone, investors are exempted from custom duty, they accorded a tax holiday of up to 30 years and foreigners are allowed to own assets and properties. Other zones such as the Mazunah Free Zone have a variety of incentive including free

access to GCC, tax exemption along with duty free imports. It is relevant to mention here also the importance of the ports in the development of these zones and of course in regard to regional sustainable development. For example, Salalah Port and Sohar Port are of major importance and play a vital role in the international transportation system and stimulating the investment in the respective areas.

Entrepreneurial environment and SMEs situation in Sultanate of Oman. The economy of Oman is ranked 56th among the world’s freest economies according to the 2015 Index of Economic Freedom prepared by the Heritage Foundation in collaboration with the Wall Street Journal . This index gauges ten particular aspects of freedom across countries worldwide. The nation is also placed 6th among countries in the Middle East region. In addition, the country is also placed in the 39th position according to the Global Entrepreneurship Index Rank 2015.

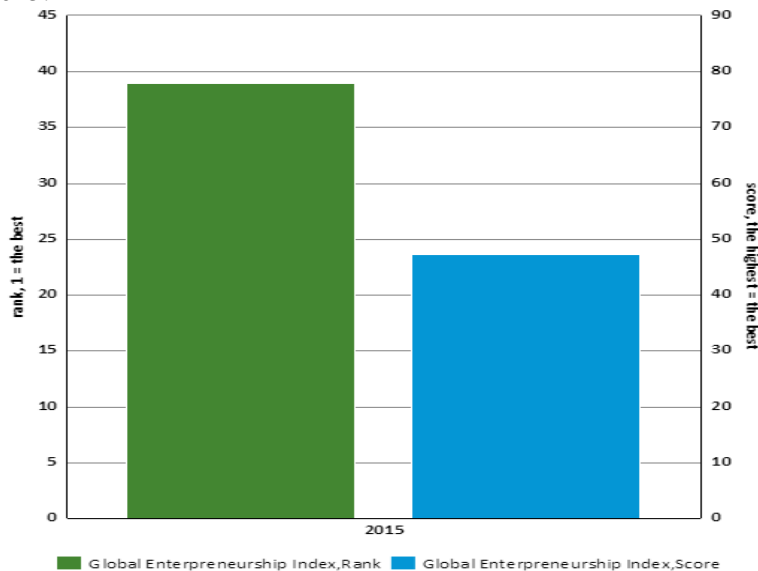


Fig.4. Oman position in comparison with the other countries in regard to Global Entrepreneurship Index Rank and Global Entrepreneurship Index Score, 2015

Source: <http://thegedi.org/2015-global-entrepreneurship-index/>, accessed in September 5th, 2015

Fiscal Freedom – 98.5 %. “Oman has no individual income tax. The corporate tax rate is 12 percent, but income from petroleum sales is subject to a 55 percent rate. There is no value-added tax or consumption tax. Formal tax revenue equals 2.5 percent of domestic income. Public spending is equal to 43.1 percent of domestic production, and government debt equals 7 percent of GDP.” (Index of Economic Freedom 2015). The most attractive and fundamental driver of foreign investors is seen with the zero tax rate on individual income as well as income generated from a business environment. A 12% maximum rate on corporation income makes the country a tax haven and an attractive investment destination for most investors both local and foreign.

Trade Freedom – 76.8%. “Oman’s average tariff rate is 4.1 percent. “*Morally objectionable*” imports may be restricted. Foreign investors may not buy land. The state dominates a significant portion of the banking sector. Most credit is offered at market rates, but subsidized loans are used to promote investment. The capital market is not fully developed, but the stock exchange is open to foreign investors.” (Index of Economic Freedom, 2015). This policy has been a major contributor to innovation in Oman. Oman national are encouraged to develop and exploit self-reliant methods of production as well as local products. Compared to its neighbors, a 4.1% tariff makes the products produced by Oman citizens more competitive and in the event encouraging innovation. It is

necessary to mention here the Free Trade Agreement with USA and Singapore, which offers to Omani products another very competitive advantage on these markets.

Labor Freedom – 76.1%. “Starting a business takes an average of five procedures and one week, but licensing requirements remain burdensome. The labor laws enforce the “Omanization” policy requiring firms to meet quotas for hiring native Omani workers. The state influences prices through an extensive subsidy system, which grew by 8 percent in 2013, driven mainly by subsidies for petroleum products and electricity.” (Index of Economic Freedom, 2015). Oman no doubt recognizes the importance of labor force in driving economic progress and development. In particular a flexible labor force is important for presenting major avenues for employment productivity. In a situation of limited employment and firing costs, labor flexibility is often high. Linking this lateral freedom with low non-salary costs, like health benefits and medical insurance, the entrepreneurial environment of Oman is able to succeed.

Sultanate of Oman innovation system. “Acknowledging the key role of innovation as a driver of economic development, it will be necessary for policymakers to be able to measure and assess’ outcomes. For this they will require innovation indicators beyond the traditional metric of inputs, such as the level of funding of research and development (R&D).” (UNCTAD, 2014). Oman ranks 69th basing on the GII Index (2015). This is attributed, to a large extent, to the lack of efficiency in the utilization of the resources and environment that are considered advantageous on an innovative front. The below average performance of Oman on the national innovation system points out to the need for Oman to hasten its policy reform process.

Framework conditions and the national innovation system. These incorporate the general environment under which the Oman national innovation system operates. According to UNCTAD 2014, the difference in the innovation performance that exists between economies is, to a significant extent, due to the variations in the way the government, firms, universities, research centers, public and private agencies and other contributing agents to innovation interact with the laid framework.

The world of academia and research. The country’s education sector is relatively well developed with number of established universities and colleges. The oldest university in the country is the Sultan Qaboos University. The university has 9 colleges; Arts and social science, Economics and Political Science, education, Law, Nursing, Agriculture and marine science, medicine and health Engineering and Science.

Opportunities and Challenges. The opportunities for entrepreneurship and investment in Oman are numerous. According to the 2015 Index of Economic Freedom, Oman showed indications of investment attraction by earning 65 points. With a booming tourism sector, hoteling industry presents a major opportunity for individuals to take advantage of it. The free zones also present strategic locations for the development of businesses to take advantage of the various incentives that are provided in. Also, the government of Oman recently made public its intentions to increase the number of free zones to more than those currently availability. This presents a major opportunity for future investors. The strategic position of the country in the Gulf has reduced the overdependence on hydrocarbons and also had a key contribution in the diversification of Sultanate of Oman’s economy, especially through the advantages of the ports. For instance, Salalah Port is critical for moving both customers and goods to their destination. The Oman Center for Investment Promotion and Export Development (OCIPED) is increasingly being involved in the provision of services to SMEs. Through the Oman Venture Capital Fund, nationals are able to acquire funds that enable them to open small business and with increased support and involvement of the body, these businesses will have access to funds for continuous operations and growth. However, with the huge number of foreign individuals flocking into the tax haven, the country faces a major challenge of increasing unemployment among the locals. In addition, policy makers are concerned about the risk presented by imported inflation (Pauceanu, 2014). This is due mainly to the free movement of goods across the border especially goods from or to the free zones. Research studies have also indicated that although

there are opportunities for investment, entrepreneurs, especially the locals, are faced with difficulty in rising capital to start businesses.

RECOMMENDATIONS AND CONCLUSION

Recommendation. As Oman attempts to deal with the problem of increasing unemployment rates among its citizens, it is important that the government increases education among individuals especially the youth to give training in matters relating to the entrepreneurship opportunities and how to approach entrepreneurship. This will ensure that the youth venture into SMEs and self-employment and a result they will be able to generate employment on their own.

Also, basing on the findings of this study, the government of Oman need to make more flexible the access to finances to the nationals in order to enable, motivate and support them to undertake entrepreneurship opportunities, invest in SMEs and have a positive contribution to the further growth of GDP. According to Ibnu Khaldum, the government is require to play major role in shifting the expectations of entrepreneurs by putting in place public works to come up with more job opportunities while also instilling self believe.

In the context of where the major challenges need to be addressed.it is important to specify the priorities. This is especially important due to the fact that government capacities are constrained. First, it is necessary to have a clear and strong engagement. In order to achieve this there should be a mobilization all over the Sultanate, top-level inter-ministerial and inter-agencies coordination and a gradual and transformative well-planned, organized and executed process. The nationals need to be educated and trained on how to take advantage of existing entrepreneurial opportunities in key sectors such as tourism, mining, as well as agriculture. This should be supported by a well-coordinated system of management especially in the context of Research and development institutions.

In addition, the government should establish an innovation agenda, to stimulate creativity, R&D and innovation management and support. The agenda should clearly stipulate the main areas of target together with a road map that should be used to facilitate the achievement of the agenda. Among the various measures that have the potential of bring instant impact in the economy, internet access should be given priority since internet has the potential of facilitating research and the process of knowledge discovery.

Further, the government should focus on reducing the bottlenecks associated with business registration. In particular, the period that an individual has to wait in order to receive a business license should be hastened in order to ensure the registration of more businesses. It is known that a longer business registration process is a major impediment to the need to increase the number of SMEs in the country. It is also important to strengthen research and development and offer innovation support. Basing on our findings above, it is clear that for further entrepreneurship opportunities, organizations should be involved in further research and innovation. More research centers need to be established in the country in order to facilitate the process of knowledge discovery. In addition, the government should ensure that it has in place an efficient system of protecting intellectual property in order to encourage further innovation and commercialization of innovation.

Conclusion. The empirical study has attempted to examine the link that exists between innovation and entrepreneurship in Oman. The qualitative data collected was subjected to inductive logic and the results obtained clearly supported existing theories and previous research work done on the area. In particular, the proposition that innovation and entrepreneurship have complementary relationship is indeed true based on the data and findings from the research, it was clear that a significant number of managers took the general view in theory that in order to venture into entrepreneurship or find a business opportunity it was apparent that one had to come up with innovative ways of doing thing and in particular, ways of solving existing problems in society or in the market.

The results of the quantitative study point to the specific aspects that the government of Oman should focus on in order to breed a culture of entrepreneurship in the country. Apart from the personal traits which cannot be influenced entirely by government actions, the government can influence other factors such as economic, political and other contextual and motivational factors. On the particular issues pertaining innovation and entrepreneurship in Oman, the government of Oman, led by his majesty Sultan Qaboos have made major steps on the entrepreneurship and innovation front in bid to ensure that the country does not only rely on the oil and gas exports for its GDP but also diversify to the more SME and technology driven economy which has been proved to work well especially in many of the developing countries. In addition, specific institutions mandated to be in charge of the country's innovation system such as The Research Council (TRC) play an important role in setting the innovation landscape in Oman. Further, a stable political environment, friendly tax laws have gone a long way in ensuring that the country's business environment is conducive for investors and in particular, foreign investors looking for tax havens to invest their money in well-established education institutions such as universities are seen as fundamental key contributors in the processes of knowledge discovery through research and development (R&D).

References

- Al-Harrasi, A. (2014) Factors Impacting Entrepreneurial Intentions: A Literature review. *International Journal of Social, Behavioral, Education and Management Engineering Vol:8*
- Aghazamani, A. & Roozikhah, E. (2010) Entrepreneurial characteristics among University Students: Case study of Iran.
- Andrew, B and Elias, G (2011) Exploring the value proposition of undergraduate entrepreneurship major and electives based on student self-efficacy and outcome. New York
- Arrow, J.K. (1962). Economic Welfare and the Allocation of Resources for Intervention. *The Rate and Direction of Inventive Activity: Economic and Social Factors*, ISBN: 0-87014-304-2, 609-626
- Bartoš, P., Rahman, A., Horák, J., Jáčová, H. (2015), Education and Entrepreneurship in the SME Segment in Economic Transformation, *Economics & Sociology*, Vol. 8, No 2, 2015, pp. 227-239. DOI: 10.14254/2071-789X.2015/8-2/16
- Bilevičienė T., Bilevičiūtė, E., Paražinskaitė, G. (2015), Innovative Trends in Human Resources Management, *Economics and Sociology*, Vol. 8, No 4, pp. 94-109. DOI: 10.14254/2071-789X.2015/8-4/7
- Brush, C. (2008). Pioneering for Entrepreneurial Success. *Business Horizons 51(1)*. 20-28
- Cameron, G. (2010). Technological convergence, R&D, trade and productive growth. *European Economic Review 49(3)* 775-800
- Dobni, C. (2008). The Innovation Blueprint. *Business Horizon 49 (4)* 5-15
- Dooly, P.C. (2005). *The Labour Theory of value*. Routledge
- Drucker, P. (2010). *Innovation and Entrepreneurship: Practice and Principles*. Heinemann. London

- Estay, C., & Ackter, M., (2013) Entrepreneurship; From Motivation to start-up, *Journal of International Entrepreneurship*, Vol 11 (3) pp 200-296
- Farsi, J., Arubiam, A. & Moradi, M. (2012) The Impact of opportunity recognition skills training on entrepreneurial intentions of female nursing students. *Journal of Knowledge Management Economics and Information Technology* Vol. 2 (4)
- Fuschi, D.L.; Tvaronavičienė M. 2014. Sustainable development, Big Data and supervisory control: service quality in banking sector, *Journal of Security and Sustainability Issues* 3(3): 5–14. DOI: [http://dx.doi.org/10.9770/jssi.2014.3.3\(1\)](http://dx.doi.org/10.9770/jssi.2014.3.3(1))
- Guan, J., and Ma, N. (2008). Innovative capability and export performance of Chinese firms. *Techonovation*, 23(9), 737-759
- Hitt, M. (2009) Partner selection in developed and emerging markets: Resource-based and Organizational learning perspectives. *Academy of management Journal* 43(2) 449-470.
- Ignatavičius, R.; Tvaronavičienė, M.; Piccinetti, L. 2015. Sustainable development through technology transfer networks: case of Lithuania, *Journal of Security and Sustainability Issues* 4(3): 261-267. DOI: [http://dx.doi.org/10.9770/jssi.2015.4.3\(6\)](http://dx.doi.org/10.9770/jssi.2015.4.3(6))
- Ismail, K. and Yanus, N (2012) Stimulating factors on women entrepreneurial intention. *Business management Journal* Vol. 2(6), pp.20-28
- Karatas, S. (2012). Economic theory of Ibnu Khaldun and the rise and fall of Nations. *Journal of Political Economy*. Vol. 79 pp113
- Katila, R (2007). "Measuring Innovation Performance," in Neely, A (Ed.), *Business Performance measurement: Theory and Practice*, Cambridge University Press, Cambridge, pp. 108-304
- Kozubíková, L., Belás, J., Bilan, Y., Bartoš, P. (2015), Personal characteristics of entrepreneurs in the context of perception and management of business risk in the SME segment, *Economics & Sociology*, Vol. 8, No 1, pp. 41-54 DOI: 10.14254/2071-789X.2015/8-1/4
- Laužikas, M.; Tindale, H.; Bilota, A.; Bielousovaitė, D. 2015. Contributions of sustainable start-up ecosystem to dynamics of start-up companies: the case of Lithuania, *Entrepreneurship and Sustainability Issues* 3(1): 8-24. [http://dx.doi.org/10.9770/jesi.2015.3.1\(1\)](http://dx.doi.org/10.9770/jesi.2015.3.1(1))
- Mackay, H. (2011). *Pioneering in entrepreneurship and small business research*. New York: Springer
- Mačiulis, A.; Tvaronavičienė, M. 2013. Secure and sustainable development: Lithuania's new role in taking the Presidency of the EU, *Journal of Security and Sustainability Issues* 3(2):5–13 [http://dx.doi.org/10.9770/jssi.2013.3.2\(1\)](http://dx.doi.org/10.9770/jssi.2013.3.2(1))
- Matetskaya, M. 2015. Education programmes for entrepreneurs in the creative industries in St. Petersburg, *Entrepreneurship and Sustainability Issues* 3(1): 66-73. [http://dx.doi.org/10.9770/jesi.2015.3.1\(6\)](http://dx.doi.org/10.9770/jesi.2015.3.1(6))
- Moller, K., Rajala, A. and Svahn, S. (2006). Strategic Business nets- their types and management. *Journal of Business Research* 58(7) 1274-1284
- Păuceanu A.M. (2007) - *Innovation – Romania's only opportunity for retrieving the gap to the developing countries*, Annals of Constantin Brâncuși University, Târgu Jiu, România,
- Păuceanu, A.M. (2014). Strategies for improving the performance of firms operating in Oman tourism industry, *Journal of Contemporary Management Sciences (JCMS)*, Volume 3 (1) 1-11, JCMS Publication, 2014
- Sarnad, K. (2012) A key catalysts of self-employment. Center for Strategy and evolution services. Oman
- Scherer, F.M. (1965). Corporate inventive output, profits, and growth. *Journal of Political Economy*, 73.
- Solow, Robert (1957). "Technical change and the aggregate production function". *Review of Economics and Statistics* 39 (3): 312–320. JSTOR 1926047.

- Tvaronavičienė, M. (2016). Start-ups across the EU: if particular tendencies could be trace, *Entrepreneurship and Sustainability Issues* 3(3): 290-298. [http://dx.doi.org/10.9770/jesi.2016.3.3\(6\)](http://dx.doi.org/10.9770/jesi.2016.3.3(6))
- Turker, D. (2009) Which factors affect entrepreneurial intentions of University students? *Journal of European Industrial Training*, Vol 33 (2) 130-173
- UNCTAD. (2014). World Investment Report 2014. Accessed August 16, 2015 from http://unctad.org/en/PublicationsLibrary/wir2014_en.pdf
- Urbaniec, M. (2015), Towards Sustainable Development through Ecoinnovations: Drivers and Barriers in Poland, *Economics and Sociology*, Vol. 8, No 4, pp. 179-190. DOI: 10.14254/2071-789X.2015/8-4/13
- Vojtovič, S.; Navickas, V.; Gruzauskas, V. 2016. Strategy of sustainable competitiveness: methodology of real-time customers' segmentation for retail shops, *Journal of Security and Sustainability Issues* 5(4): 489-499. [http://dx.doi.org/10.9770/jesi.2016.5.4\(4\)](http://dx.doi.org/10.9770/jesi.2016.5.4(4))
- Zeffane, R., (2012) Gender and Youth Entrepreneurship Potential: Evidence from the United Arab Emirates. *International Journal of Business Management* Vol. 8 (1) 60-72.
- Zhao, F. (2007). Managing innovation and quality of collaborative R&D. research conference: Melbourne http://www.socialent.org/Social_Enterprise_Terminology.htm, accessed in September 12th, 2015

Alexandrina Maria PAUCEANU is assistant professor at Dhofar University and she received a PhD in management from the Academy of Economic Studies in Bucharest. She is a full professor in Switzerland, with over 12 years of international teaching experience, for-profit field and consultancy in both multicultural and multilingual environments. Currently, she is teaching in Middle East (Sultanate of Oman) and also in Switzerland where she is supervising several doctoral students. She traveled to the Sultanate of Oman to implement her knowledge of small- and medium-sized enterprises and entrepreneurship and found herself in a community to which she could make significant contributions. She is involved in community development and as well as in the Dhofar University Center for Entrepreneurship. The most recent book, *Entrepreneurship in the Gulf Cooperation Council*, promotes a practical approach to starting businesses and is useful not only to students but also to anyone seeking to gain practical insights about essential aspects of entrepreneurship. It is published by Elsevier USA