



Entrepreneurship Ecosystem: An Appraisal of Oman Using the Ease of Doing Business Index

Vibha Bhandari^{a++} and Vikram Mohite^{a++*}

^a *College of Economics and Business Administration, University of Technology and Applied Sciences
Nizwa, Sultanate of Oman.*

Authors' contributions

Both the authors have made equal contribution to this paper. Both authors have read and approved the final manuscript.

Article Information

DOI: 10.9734/AJESS/2023/v46i2998

Open Peer Review History:

This journal follows the Advanced Open Peer Review policy. Identity of the Reviewers, Editor(s) and additional Reviewers, peer review comments, different versions of the manuscript, comments of the editors, etc are available here: <https://www.sdiarticle5.com/review-history/99956>

Short Research Article

Received: 20/03/2023

Accepted: 23/05/2023

Published: 01/07/2023

ABSTRACT

Today, promoting and nurturing entrepreneurship is a core component of economic development in countries around the world. Fostering entrepreneurship as an economic development strategy necessitates a suitable ecosystem termed an "entrepreneurship ecosystem". Isenberg developed a model of the entrepreneurship ecosystem in 2011 that contains six domains: a conducive culture, enabling policies and leadership, availability of appropriate finance, quality human capital, venture-friendly markets for products, and a range of institutional and infrastructural supports. These six domains are composed of fifty specific sub-components. This study in its current form shall assess the regulatory and institutional framework aspect of the entrepreneurship ecosystem in the Sultanate of Oman. This assessment is done from 2012 to 2019 using the Ease of Doing Business Index published by the World Bank. It is discovered that the overall Doing Business score for Oman increased to 67.19 in 2019 from 66.79 in 2012. The study reveals that Oman has made significant progress in connection to starting a business while getting credit is still an area of concern and

^{**} Assistant Professor;

^{*}Corresponding author: Email: vikram.mohite@utas.edu.om;

needs urgent intervention. This exercise helped to know the change in ease of doing business in Oman for the years under consideration and thus assessed the changes in regulatory and institutional framework aspects of the entrepreneurship ecosystem in the country.

Keywords: *Entrepreneurship; ecosystem; regulatory framework; ease of doing business index; World Bank and Sultanate of Oman.*

1. INTRODUCTION

The six states of the Gulf Cooperation Council (GCC) have over five million migrant workers — one of the highest concentrations of migrant workers in the world, according to the World Migration Report [1]. This influx of migrant workers began majorly due to the discovery of oil in the early 20th century in this region. Moreover, the sudden increase in international oil prices post-1973 led to a rapid expansion of Arab economies, resulting in an exodus of expatriate workers from populous countries viz. India, Pakistan, Bangladesh, and Sri Lanka. However, in the past ten years, the region experienced a major overhaul due to a financial crisis followed by a continuous fall in international crude oil prices [2]. These factors not only influenced the economic aspects of GCC countries but also influenced their social and political aspects [3]. The fall in oil prices triggered the possibility of an economic slowdown resulting in increasing unemployment in the region. To counter this issue, the governments of the region have adopted a nationalization policy of the workforce [4]. The countries of Saudi Arabia, UAE, and Oman were among the first countries in the region to adopt the nationalization of the workforce [5].

The Sultanate of Oman (hereafter referred to as Oman), initiated a nationalization of workforce (*Omanisation*) policy in 1988 directed at replacing expatriate workers with trained Omani personnel. Oman sets quotas for various industries to reach in terms of the percentage of Omani to foreign workers. However, it is anticipated that due to the development of technology and the massive use of alternative fuels, international crude oil prices are likely to remain at lower levels for the long term. This would affect the income of all the oil-exporting economies including Oman. Hence, to achieve sustainable economic and social prosperity, Oman has recognized the need to reduce the dependency on oil revenues through diversification of the economy [6]. The diversification will strengthen the private sector and empower the local population to contribute to

the development thereby achieving the Omanization goal [7].

Despite the efforts aimed at Omanization, generating gainful employment has become a mammoth task. Historically Omanis have extensively traveled for business and trading. The unique geographical location has gainfully supported the business pursuits of the citizens of Oman. The government of Oman at present is engaged in reviving the past entrepreneurial zeal and promoting entrepreneurship initiatives among its citizens. This initiative will not only create jobs and generate economic growth but also help in sustaining a stable civil society. However, to nurture and promote entrepreneurship in Oman, an effective ecosystem is inevitable.

2. ENTREPRENEURSHIP ECOSYSTEM

The term ecosystem was first used in 1935 in a publication by British ecologist Arthur Tansley [8]. Tansley developed the concept to draw attention to the significance of transfers of materials between organisms and their environment. He later refined the term, describing it as "*The whole system, including not only the organism-complex but also the whole complex of physical factors forming what we call the environment*" [9]. Later, this concept was diluted and extended to various applied and social sciences, not limiting the discussion to life sciences. It was also applied in business studies giving rise to the business ecosystem [10], innovation ecosystem [11], entrepreneur ecosystem [12], and knowledge ecosystem [13] concepts. These concepts today have implicated significant ascendancy in the business world and numerous studies have been undertaken to give theoretical and empirical justifications.

Several studies in recent years have focused on understanding the dynamics and components of an entrepreneurial ecosystem. These studies have shown that an entrepreneurial ecosystem is made up of a variety of interconnected factors, including entrepreneurs, universities and research centers, accelerators and incubators,

venture capitalists and angel investors, government policies and regulations, cultural norms and values, and infrastructure such as co-working spaces and networking opportunities. The importance of an entrepreneurial ecosystem lies in its ability to foster innovation, create new businesses and jobs, and drive economic growth. It provides a supportive environment for entrepreneurs to access the resources and networks they need to succeed, while also shaping market conditions through collaboration and innovation. Entrepreneurship takes place in a community of actors where, traditionally, the role of social context in allowing or disallowing entrepreneurship has been studied. However, recently it is discovered that for an enterprise to survive and thrive other aspects of the ecosystem facilitated by the government are equally important besides the entrepreneur himself. Models in the past have been developed to understand the role of various factors in the development of the Entrepreneurship Ecosystem. Each ecosystem has its path of evolution over time. Preliminary research contributed to the evolution of the entrepreneurial ecosystem concept. *“The market-based ecosystem allows private sector and social actors, often with different traditions and motivations, and of different sizes and areas of influence, to act together and create wealth in symbiotic relationships. Such an ecosystem consists of a wide variety of institutions coexisting and complementing each other [14]”*. Prahalad was the first to apply this concept to entrepreneurship and further stressed building economic wealth and prosperity for future generations.

Isenberg (2010) focused on the government's efforts in building sustainable entrepreneurship and the related environment through direct or indirect policy interventions. *“The entrepreneurship ecosystem consists of a set of individual elements—such as leadership, culture, capital markets, and open-minded customers—that combine in complex ways” [15]*. He further stressed that despite dynamic challenges, viz legal framework or cultural biases, the entrepreneurial ecosystem has contributed phenomenally to developing and emerging economies. In these economies, the poorest socioeconomic section has been the most active in developing innovative business models and starting new ventures [16].

It can be further inferred from the above definitions that an entrepreneurial ecosystem is a

unique type of ecosystem that combines various stakeholders, individuals, firms, and supporting organizations which despite their fundamental differences in objectives collectively contribute to economic growth [17,18]. Significant research has been undertaken in the contribution and expansion of the ecosystem concept in business studies. Today there are four ecosystems [19] particularly influencing the entire ecosystem taxonomy viz, Business Ecosystem [20], Innovation Ecosystem [21], Entrepreneurial Ecosystem [22], and Knowledge Ecosystem [23]. As there are multiple ecosystems, it becomes important to classify the invariant characteristics influencing the entrepreneurship ecosystem particularly. The following diagram will help in better understanding of factors influencing and the outcome derived through effective implementation of the entrepreneurship ecosystem in any economy.

It is an ecosystem that is purposeful in collaborating networks of dynamic interacting systems and subsystems that have an ever-changing set of dependencies within a given context [24]. Nascent entrepreneurs who are individuals in the process of launching a new venture are at the heart of this system. These entrepreneurs represent a subset of the adult population in a given country. The attitudes that prevail within the wider population influence who chooses to become an entrepreneur. The nascent entrepreneurs are characterized by varying degrees of ability and entrepreneurial aspirations. These entrepreneurs usually start their entrepreneurial ventures as Small and Medium Enterprises (SMEs) and the success in their initial ventures motivates them to move further.

In recent years, many models have been developed to gain a better understanding of the development of entrepreneurship ecosystems, notable among them are Isenberg (2011), Feld (2012), and World Economic Forum (2013) framework. Stam (2015) attempted to provide a novel framework wherein, he presented with an analysis of interactions between various elements of the ecosystem [25]. Feld (2012) emphasized the role of various players operating within an ecosystem and interactions among them, with the government playing the role of an enabler. He identified nine attributes of entrepreneurs, players in the ecosystem, and government, for a successful start-up and a conducive environment for the development of the ecosystem [26]. The World Economic Forum

(2013) report focuses on the presence of key factors (resources) such as human capital, finance, and services; the formal (“government & regulatory framework”) and informal institutions (“cultural support”) enabling entrepreneurship and access to customers in domestic and foreign markets. This implies that different nations can have different economic environments, which will facilitate the building of their entrepreneurial

ecosystems that can encourage successful business ventures [27]. However, there is no exact formula for creating an entrepreneurial economy, there are only practical, if imperfect, road maps [28]. With diverse opinions and emerging frameworks, there is a need to identify and promote critical elements that are essential for a thriving, healthy, and structured entrepreneurship ecosystem.

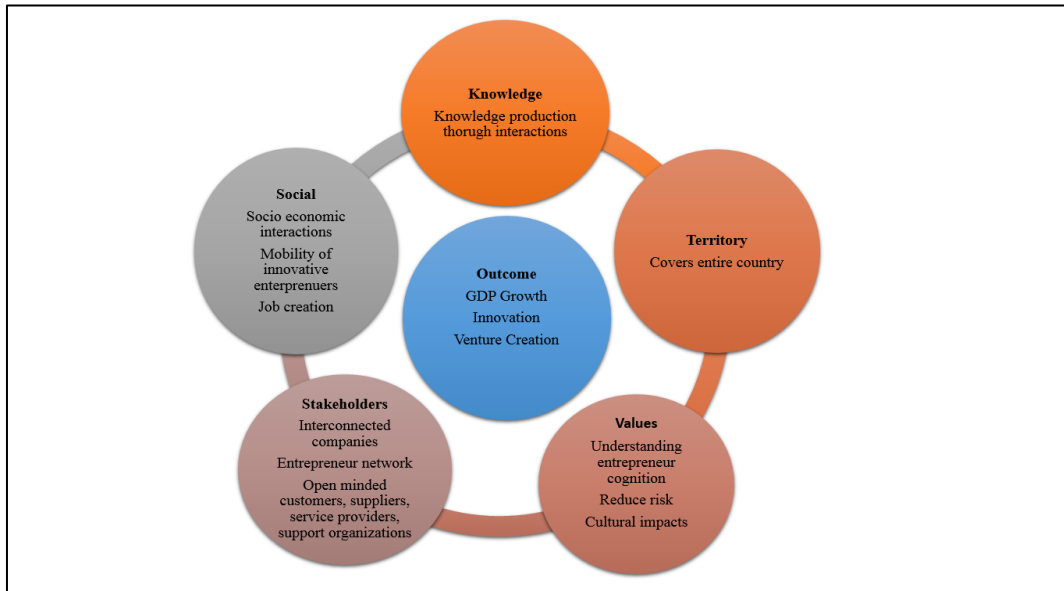


Fig. 1. Factors influencing and outcome of the entrepreneurship ecosystem
 Source: Authors' representation

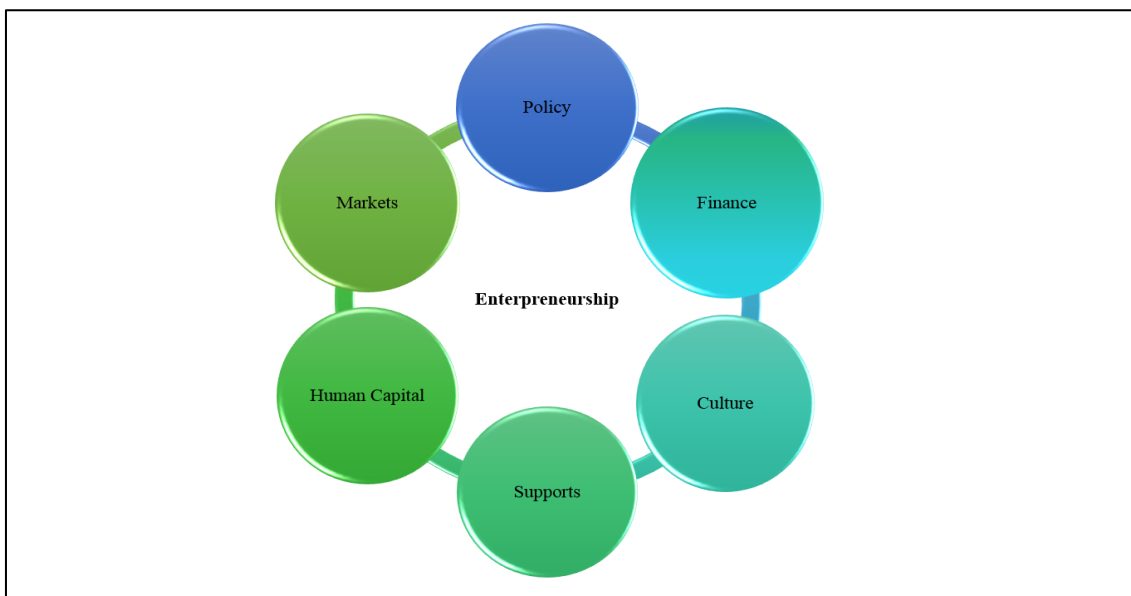


Fig. 2. Isenberg's Model of Entrepreneurship Ecosystem
 Source: Isenberg (2011)

The reason for choosing the Isenberg model (2011) in this current study is that this model was successful to identify generic domains which interact in highly complex ways and lead to developing ecosystems that possess unique characteristics and conditions. The majority of the past studies have focused on developing frameworks or on assessing the empirics of existing frameworks. However, the current study intends to fill the gap in the existing literature in two stages by applying Isenberg's model of entrepreneurship ecosystem as represented in Fig. 2. Firstly, by empirical use of the Ease of Doing Business Index and secondly, for the country Oman where not much work has been sighted in the past.

As seen from the above Fig. 2, the Isenberg (2011) framework, suggests that the entrepreneurship ecosystem must include six key dimensions with twelve elements incorporated together. These are:

- Policy (leadership, government);
- Finance (financial capital);
- Culture (success stories, societal norms);
- Supports (infrastructure, support professions);
- Human capital (labor, educational institutions); and
- Markets (early customers, networks)

Governments have the enormous task of fostering an enabling environment for entrepreneurs and SMEs. The government's role

is not restricted to the provision of credit for the SMEs but also to provide policy directive measures that resonate with the multiple stakeholders who nurture and promote the growth of entrepreneurship ecosystems. Government-enacted policies deal with institutions, financial support, regulatory framework incentives, research institutes, and venture-friendly legislation.

The government in its institutional role strives to develop, foster and monitor regulatory frameworks which influence the development of new businesses and expand the existing business.

In this study, an assessment with regards to a policy framework that results in the regulatory framework for the SMEs shall be undertaken with regard to Oman.

3. EASE OF DOING BUSINESS

Ease of Doing Business (hereafter referred to as Doing Business (DB)) is a measure of the regulatory framework existing for SMEs in a country. This index developed by the World Bank in 2003 measures areas pertaining to SMEs in a country, right from starting a business to resolving insolvency. The following figure depicts the areas measured by DB.

The details of these eleven areas of business regulation as measured by DB are shown in the following Table 1.

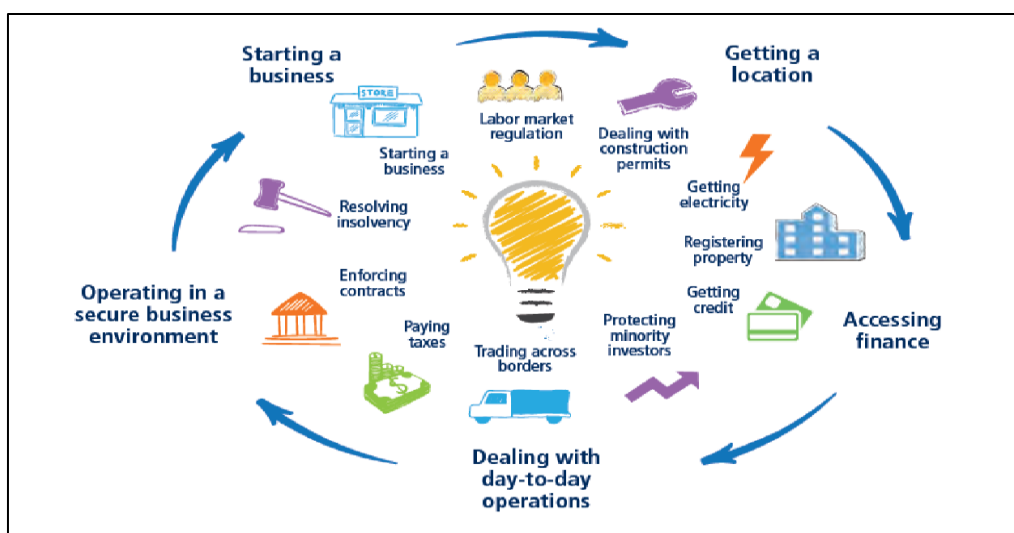


Fig. 3. Areas Measured by Doing Business (DB)

Source: Doing Business Database, The World Bank (2019)

Table 1. Indicator sets, and areas measured by doing business

Indicator set	Areas measured
Starting a business	Procedures, time, cost, and paid-in minimum capital to start a limited liability company for men and women
Dealing with construction permits	Procedures, time, and cost to complete all formalities to build a warehouse and the quality control and safety mechanisms in the construction permitting system
Getting electricity	Procedures, time and cost to get connected to the electrical grid, the reliability of the electricity supply, and the transparency of tariffs
Registering property	Procedures, time, and cost to transfer a property and the quality of the land administration system for men and women
Getting credit	Movable collateral laws and credit information systems
Protecting minority investors	Minority shareholders' rights in related-party transactions and incorporate governance
Paying taxes	Payments, time, and total tax and contribution rate for a firm to comply with all tax regulations as well as post-filing processes
Trading across borders	Time and cost to export the product of comparative advantage and import auto parts
Enforcing contracts	Time and cost to resolve a commercial dispute and the quality of judicial processes for men and women
Resolving insolvency	Time, cost, outcome, and recovery rate for commercial insolvency and the strength of the legal framework for insolvency
Labor market regulation	Flexibility in employment regulation and aspects of job quality

Source: Report on Doing Business: Training for Reform (2019)

At present, DB provides quantitative indicators on regulating business related to only the first ten areas. The last area of labor market regulation, though studied under DB, is not included while quantifying the ease of DB.

Since its inception in 2003, this index assesses the regulatory and institutional framework for SMEs of a country which leads to its inclusive and sustainable economic growth. These variables represent the various factors important for the functioning of SMEs that lead to their success. DB comprises two measures –score and rank. The ease of DB score reflects the gap of each economy from the best regulatory performance observed on each of the indicators across all economies in the sample since 2005. This score is reflected on a scale from 0 to 100, where 0 represents the lowest and 100 represents the best performance. Similarly, the ease of DB ranking ranges from rank 1 to rank 190 [29,30].

4. METHODS

This study in its current form shall assess the regulatory aspect of the entrepreneurship ecosystem in Oman. This assessment shall be done from 2012 to 2019 using the Ease of DB Index as published by the World Bank.

This exercise will help to know the change in ease of doing business in Oman for the years under consideration and thus review the regulatory aspect of the entrepreneurship ecosystem for SMEs in the country. The results thus derived will help in the adoption of policy measures to promote entrepreneurship, reduce unemployment, and achieve diversification in the country.

The methodology used for the calculations of the scores changed three times in 2015, 2016, and 2017. Some of the indicators used for calculating the DB have also undergone changes. To maintain uniformity, equivalent scores have been taken for the years when there was a change in methodology. As such the scores used for all the areas of DB in this exercise reflects the DB 17-19 methodology.

5. RESULTS

With a score of 67.19, Oman holds a rank of 78 in the ease of DB among 190 countries of the world. Over a period of time, Oman strived to make progress in improving its global ranking. Changes in the rank and score for Oman in 2019 as compared to 2012 are presented in the following Table 2.

Table 2. Ease of DB rank and score for Oman for 2012 and 2019

Indicator set	Rank (2019)*	Score (2019)	Rank (2012)**	Score (2012)
Ease of doing business	78	67.19	47	66.79
Starting a business	37	92.89	73	72.53
Dealing with construction permits	66	72.05	59	72.12
Getting electricity	66	79.34	54	76.70
Registering property	52	74.03	18	88.16
Getting credit	134	35.00	83	50.00
Protecting minority investors	125	46.67	100	50.00
Paying taxes	12	90.16	10	92.66
Trading across borders	72	79.39	49	77.29
Enforcing contract	73	60.02	107	50.07
Resolving insolvency	100	42.34	77	38.42

*Ranks and scores for DB 2019 include 190 countries

** Ranks and scores for DB 2012 include 183 countries

Source: Various DB reports, The World Bank (2012 and 2019)

Areas measured by DB for Oman as shown in the above table, reveal the following:

- **Starting a business:** Oman stands at a ranking of 37, which is higher as compared to its ranking of 73 in 2012. The score for this parameter indicates a change from 72.53 to 92.89. As compared to MENA's 2019 score of 82 and rank of 113, Oman's performance is better than its counterparts in the region.
- **Dealing with construction permits:** Oman stands at a ranking of 66 which is below the rank of 59 in 2012. The score for this parameter has changed marginally from 72.12 to 72.05. When compared to the ranking of 98 for the MENA region with a score of 59.7, it is evident that Oman stands to fare better.
- **Getting electricity:** The score for Oman in this area has improved from 76.70 to 79.34 in a span of seven years. However, the ranking of Oman has fallen from 54 to 66 during this period. Compared to the regional MENA average ranking of 94 at a score of 69.45, Oman stands above its counterparts in the region.
- **Registering property:** The score of Oman for this area has shown a decrease from 88.16 in 2012 to 74.03 in 2019. This decrease in the score is reflected in a sharp decline in the rank of Oman from 18 to 54. However, the position of Oman is better than the regional average ranking of 90 for MENA with a score of 62.11.
- **Getting credit:** Oman stands at a ranking of 134, which is lower when compared to its ranking of 83 in 2012. This decline in

ranking is reflected in a decrease in scores for this parameter from 50 to 35 during this period. When compared to MENA's 2019 score of 30 and rank of 126, Oman's performance score is better but the ranking is lower than its counterparts in the region.

- **Protecting minority investors:** The ranking of Oman in this area has fallen from 100 to 125, which is reflected by a downfall in the score from 50 in 2012 to 46.67 in 2019. When compared to MENA's score of 51.83 and ranking of 101, it is seen that Oman lags behind its regional counterparts.
- **Paying taxes:** Oman's ranking for this area has marginally slipped down from 10 to 12 and this is reflected in a marginal decline in its score from 92.66 in 2012 to 90.16 in 2019. However, the rank and score of Oman are better than the regional average rank of 83 which is earned by a score of 74.52.
- **Trading across borders:** Though Oman's ranking in this area has slipped from 49 in 2012 to 72 in 2019, the scores show a marginal improvement from 77.29 to 79.39 for the same time frame. When compared to the regional average score of 60.17 and a rank of 121, Oman stands in a better position than its counterparts.
- **Enforcing contracts:** Oman's ranking has improved from 107 in 2012 to 73 in 2019. This improvement in ranking is reflected in the increase in score from 50.07 to 60.02 for the same time frame. Oman's position is better than the average rank of 105 for MENA with a score of 55.04.

- **Resolving insolvency:** Though the score in this area has improved from 38.42 in 2012 to 42.34 for 2019, the rank shows a sharp decline from 77 to 100 during the same period. For 2019, Oman stands ahead of the MENA regional average rank of 121 and score of 32.69.

6. DISCUSSION

The analysis undertaken indicates that Oman has improved on the majority of indicators since 2012. The improvement in the scores among the indicators gives evidence that the government is successfully contributing to fostering a conducive entrepreneurship ecosystem. These changes in the ranks and score of Oman for ease of DB have been possible due to several initiatives undertaken by the government and other regulatory and institutional bodies of the country. The following Exhibit 1 provides a list of reforms undertaken by Oman to ease the DB for SMEs in Oman.

As is evident from the exhibit, the Omani government and institutions have taken numerous steps to create a supportive entrepreneurship ecosystem for SMEs in the country. These initiatives have resulted in an overall better DB score of 67.19 for 2019 as

compared to 66.79 for 2012. Though this is a marginal enhancement of the score, it reflects the combined changes in different areas of the index. To know the comprehensive change for Oman in the ease of DB score, it is essential to know the change in the area-wise scores from 2012 to 2019. These changes for all areas of DB are presented in Fig. 4.

As can be seen from Fig. 4, Oman has achieved a notable increase of 28.07% in the scores for starting a business over a time frame of seven years. This substantial increase in the score of starting a business is reflected in an enhancement in rank from 73 in 2012 to 37 in 2019. On the other hand, getting credit is an area that needs urgent attention and immediate intervention. The results depict that for this area, the scores have fallen by 30% over the years and which is reflected in the decline in ranking. Areas like enforcing contracts, resolving insolvency, getting electricity, and trading across borders have shown improvement in the ease of DB scores. However, areas related to dealing with construction permits, paying taxes, and registering property need the attention of the policymakers, as they have not shown improvement to keep up with the requirements of the SMEs.

Exhibit 1. Business Reforms in Oman from 2012 to 2019

DB2019

Oman made paying taxes more costly by increasing the corporate income tax rate and by eliminating the tax exemption on the first 30,000 Omani rials (\$78,000) of taxable profits.

DB2018

Oman made exporting and importing easier by enhancing its online single-window system for exports and imports, reducing the time required for documentary compliance.

DB2017

Oman made starting a business easier by removing the requirement to pay the minimum capital within three months of incorporation and streamlining the registration of employees.

Oman reduced the time for border and documentary compliance by introducing a new online single window/one-stop service that allows for fast electronic clearance of goods.

DB2016

Oman improved the regulation of outages by beginning to record data for the annual system average interruption duration index (SAIDI) and system average interruption frequency index (SAIFI).

Oman reduced the time for border compliance for both exporting and importing by transferring cargo operations from Sultan Qaboos Port to Sohar Port.

DB2013

Oman improved access to credit information by guaranteeing borrowers' right to inspect their personal data.

Oman reduced the maximum number of working days per week and increased the paid annual leave applicable for employees with one year of service.

DB2012

The one-stop shop in Oman introduced online company registration and sped up the process to register a business from 7 days to 3 days.

Oman improved its credit information system by launching the Bank Credit and Statistical Bureau System, which collects historical information on performing and nonperforming loans for both firms and individuals.

Source: Report on Business Reforms in Middle East and North Africa (MENA) (2019)

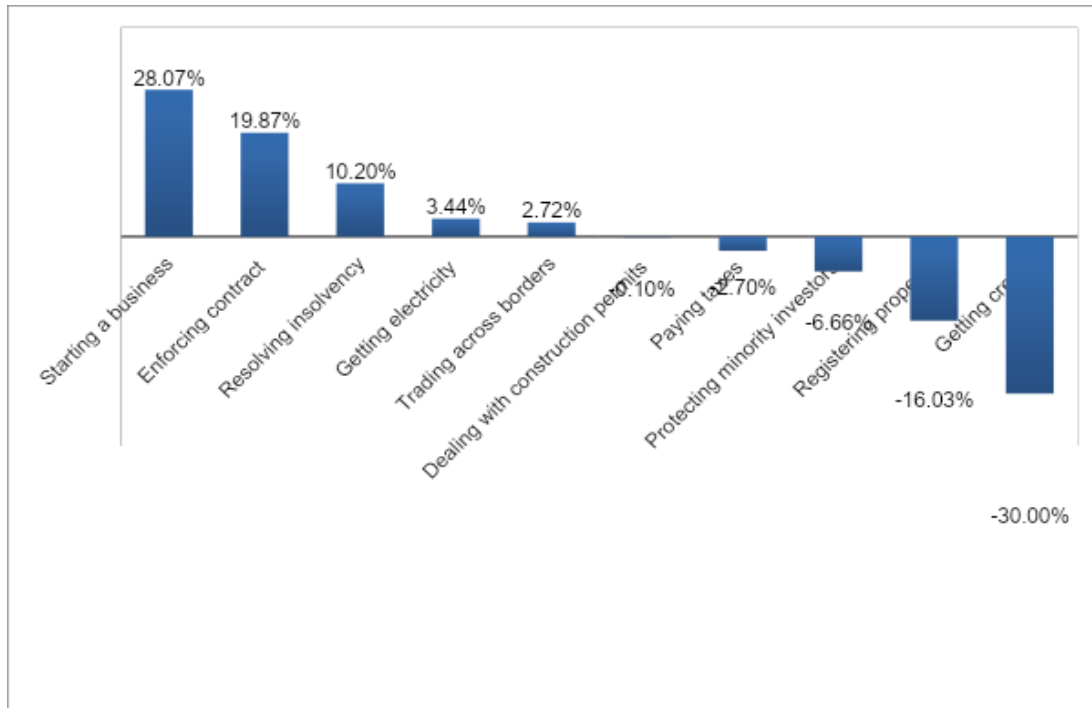


Fig. 4. Change in scores of ease of DB from 2012 to 2019

7. CONCLUSION

Entrepreneurship ecosystems have been instrumental in promoting and nurturing entrepreneurs in any country. The governments play a paramount role in developing these ecosystems to achieve sustainable development for their citizens. The regulatory framework of countries not only helps to monitor but also facilitates the development of business.

Ease of DB Index accords scores to countries assessing their regulatory framework. Countries like New Zealand, Singapore, and Denmark lead the tally among 190 countries included in the Ease of DB Index. Oman with a score of 67.19 for 2019 exhibits an improvement over its score of 66.79 in 2012. Nevertheless, the DB ranking has slipped from 47 in 2012 to 78 in 2019. The fall in ranking may not be directly attributable to a lack of government initiatives to improve the regulatory framework. However, this decline may be due to better improvements related to fostering a self-employment environment, cheaper financing options, appropriate training, strong industry-government partnerships, and special attention to female entrepreneurs in other countries that outweigh the initiatives undertaken by the Government of Oman [31,32].

It is clear that at present much needs to be done to accomplish a thriving ecosystem and improve the DB ranking of Oman. In this regard, qualitative interventions by the government are required. These qualitative initiatives could include a combination of institutions and human agency into an interdependent system of complementarities [33]. The government will have to initiate policy measures aimed at further strengthening and improving the legal framework. This initiative on the part of the government coupled with similar initiatives from support institutions, the private sector, and other stakeholders will promote, nurture and foster entrepreneurship and thereby augment the entrepreneurship ecosystem in Oman. This initiative of the government should also be supported by entrepreneurs who can guide and lead incipient entrepreneurs and lead to a functional and nurturing ecosystem. The spread and support of entrepreneurship in Oman shall thus help to achieve the goal of sustainable diversification of the Omani economy.

DISCLAIMER

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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