



VISION 2035 AND THE KUWAITI ENTREPRENEURSHIP/ INNOVATION ECOSYSTEM: REFORMING SME POLICY TO ENABLE INNOVATIVE STARTUPS



**The 2023 Incentive Award for Outstanding
Research Paper Winner
"Kuwaiti Economics Student Prize"**

البحث الفائز بالجائزة التشجيعية "جائزة الطالب الاقتصادي الكويتي"
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VISION 2035 AND THE KUWAITI ENTREPRENEURSHIP/ INNOVATION ECOSYSTEM: REFORMING SME POLICY TO ENABLE INNOVATIVE STARTUPS

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الملخص التنفيذي

الهدف:

تبحث هذه الدراسة في بيئة الأعمال في الكويت ومواءمتها مع رؤية 2035 والتي تهدف إلى تحويل الكويت إلى اقتصاد متنوع يحركه الابتكار، وتشير هذه الدراسة إلى العديد من الأسئلة الهامة المتعلقة بدور الدولة في دعم ريادة الأعمال، والوضع الحالي لبيئة الأعمال، ومعوقات الابتكار، وكذلك أيضا الإصلاحات المؤسسية اللازمة لتمكين و تمويل المشاريع المبتكرة في الكويت.

المنهجية:

أجريت هذه الدراسة عبر مراجعة للأدبيات السابقة مع جمع البيانات الأولية، حيث تم جمع البيانات من خلال مسح الابتكار الريادي (EIS)، والذي شمل مجموعة متنوعة من رواد الأعمال في جميع أنحاء الكويت، حيث تم جمع 153 استجابة على مدى ثلاثة أشهر. وبالإضافة إلى ذلك، أجريت مقابلات متعمقة شبه منظمة مع 11 شخصية اعتبارية من ذوي الشأن، بما في ذلك صانعو السياسات والمسؤولون الحكوميون.

النتائج:

تكشف هذه الدراسة عن عدم وجود حلقة وصل بين مؤسسات الدعم الحكومية واحتياجات الشركات الصغيرة والمتوسطة في الكويت، وتشير النتائج الرئيسية لهذه الدراسة إلى التحديات التي تواجه الصندوق الوطني لرعاية وتنمية المشاريع الصغيرة والمتوسطة من حيث أولا: تمويل الشركات الصغيرة والمتوسطة، وثانيا: تطوير بيئة الأعمال في الكويت على نطاق أوسع. وكذلك تحدد هذه الدراسة أيضا نهجا مجزأ لدعم ريادة الأعمال داخل النظام الحالي لبيئة الأعمال الذي يعيق نمو الشركات الصغيرة والمتوسطة المبتكرة.

الأثر:

تشير النتائج إلى أن إصلاح الصندوق الوطني لرعاية وتنمية المشاريع الصغيرة والمتوسطة يمكن أن يشجع على زيادة ونمو المشاريع المبتكرة في الكويت. وتشمل الإصلاحات الاستراتيجية الموصى بها في هذه الدراسة: إنشاء هيئة عامة للمشاريع المبتكرة لتنسيق جهود تطوير النظام الإيكولوجي، وإنشاء صندوق مخصص للبحث والتطوير يركز على الشركات الصغيرة والمتوسطة المبتكرة (يدمج عمل الصندوق الوطني مع الهيئة العامة للاستثمار ومعهد الكويت للأبحاث العلمية)، وكذلك أيضا تعزيز تدابير الشفافية والمساءلة في إدارة النظم الإيكولوجية.

هذه الإصلاحات ضرورية لتحقيق أهداف التنويع الاقتصادي المحددة في رؤية 2035، ولتأسيس قاعدة مستدامة للنمو الاقتصادي المستقبلي من خلال دعم وتعزيز ريادة الأعمال المبتكرة

ABSTRACT

Purpose: This research paper examines Kuwait's current entrepreneurial ecosystem and its alignment with Vision 2035, which aims to transform Kuwait into a diversified, innovation-driven economy. This study seeks to address several critical questions concerning the role of the state in supporting entrepreneurship, the current state of the entrepreneurial ecosystem, barriers to innovation, and the specific institutional reforms needed to enable and finance innovative enterprise.

Method: Employing a mixed-methods approach, this study integrates a review of existing literature with primary data collection. Data was gathered through the Entrepreneurial Innovation Survey (EIS), which solicited responses from a diverse group of entrepreneurs across Kuwait, with 153 responses over a three-month period. Additionally, in-depth semi-structured interviews were conducted with 11 key stakeholders, including policymakers and government officials.

Findings: The study reveals a disconnect between governmental support structures and the needs of innovative SMEs. The ecosystem requires more targeted interventions to address specific barriers to innovation and entrepreneurship. Key findings indicate the challenges of currently having both the financing of SMEs and the broader ecosystem developmental functions held by the National Fund for SME Development (NFSD). This research also identifies a fragmented approach to entrepreneurial support within the current ecosystem which undermines the effective development of innovative SMEs.

Implications: The findings of this study suggest that reform of the NFSD can unlock the potential for innovative enterprise in Kuwait. Recommended strategic reforms include the establishment of a Public Authority for Innovative Enterprise to coordinate ecosystem development efforts, the creation of a dedicated R&D fund focused on innovative SMEs (more closely integrating the work of the NFSD with the Kuwait Investment Authority and the Kuwait Institute for Scientific Research), and enhanced measures for transparency and accountability in ecosystem management. These reforms are essential for realizing the economic diversification goals outlined in Vision 2035, and for laying a sustainable foundation for future economic growth through innovative entrepreneurship.

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1. VISION 2035 AND THE KUWAITI ENTREPRENEURSHIP/ INNOVATION ECOSYSTEM: REFORMING SME POLICY TO ENABLE INNOVATIVE STARTUPS

1.1 Introduction

This research paper addresses the current state of the Kuwaiti entrepreneurship ecosystem, and what steps must be taken so it can meaningfully contribute to economic diversification. Overreliance on natural resource rents poses an existential threat to Kuwaiti society. Oil revenues represent approximately 90% of state revenue, 90% of exports, and 50% of GDP (GSSCPD, 2020, p. 3). Kuwait entered fiscal deficit in 2014/15, and has remained in deficit ever since (apart from in 2022/23). Economic rationalization is crucial as 80% of state expenditures are spent on salaries and subsidies alone (Ministry of Finance, State of Kuwait, 2024). Unless this pattern of fiscal spending is rebalanced in the coming years, Kuwait will exhaust the national net reserve funds (the General Reserve Fund and Future Generation Fund) by 2035 (GSSCPD, 2020).

At the center of modernization efforts is Vision 2035, the national agenda for creating a “New Kuwait” launched by H.H. Sheikh Sabah Al-Sabah in 2017. As stated in the Kuwait National Development Plan 2020 – 2025 (KNDP), the government aims to build long term prosperity through a “...balanced and private sector driven economy” (GSSCPD, 2020, p. 19). This paper seeks to contextualize the current state of the Kuwaiti entrepreneurship ecosystem, before undertaking a more in-depth analysis of the strategic objectives within Vision 2035 focused on the development of an innovative entrepreneurial ecosystem.

The lack of a whole-of-government approach to entrepreneurship support and financing prevents progress being made on this time-sensitive objective. Whilst created to serve as the key institution in entrepreneurship enablement, the National Fund for SME Development (NFSD) currently suffers from a lack of strategic orientation, and deficiencies in its operational capability. In this, there is fundamental

divergence from the Kuwait Investment Authority (KIA) and the Central Bank of Kuwait (CBK) which were ranked as the two leading Kuwaiti institutions for human capabilities (World Bank, 2022). Drawing on the insights gathered from various sources, this paper proposes a series of policy interventions, such as:

1. Development of a National Strategy for Entrepreneurship to refresh the governing agenda in this area.
2. Restructuring of the NFSD to enhance its role as a financier for innovative SMEs.
3. Establishment of a Public Authority for Innovative Enterprise tasked with leading ecosystem development efforts.
4. Creation of a dedicated R&D fund focused on high-growth SMEs.
5. Increased transparency and public accountability within the ecosystem.
6. Initiatives aimed at supporting entrepreneurial talent development through education, mentorship, and international collaboration.

These recommendations are key steps towards not only addressing the immediate challenges faced by Kuwaiti SMEs; but also in providing a foundation for an innovation-led entrepreneurial ecosystem that enables implementation of Kuwait's broader economic diversification and development goals as envisioned in Vision 2035.

1.2 Key Research Questions

This study aims to deliver actionable insights and policy recommendations that will aid in the transformation of Kuwait's entrepreneurial landscape, drawing on insights from key policymakers, stakeholders, and academics. The key research questions addressed in this study include:

1. What is the appropriate role of the state in enabling entrepreneurship?
2. What is the current state of Kuwait's entrepreneurial-innovation ecosystem?
3. How does Vision 2035 envision the development of this ecosystem, and what measures must be in place to enable this?
4. What are the current barriers to the development of an innovative entrepreneurship ecosystem in Kuwait, and how can these be addressed?
5. How can the NFSD be reformed to act as an effective financier of innovative entrepreneurship?

1.3.1 Methodology: Research Design

This study adopts a mixed-methods approach to provide a comprehensive understanding of the Kuwaiti entrepreneurship ecosystem. By integrating quantitative survey data with qualitative insights from expert interviews and a comprehensive literature review, the research aims to explore the current state of entrepreneurship in Kuwait, identify key challenges, and propose actionable policy recommendations aligned with Vision 2035.

1.3.2 Research Methods: Literature Review

The literature review undertaken aimed to provide a theoretical foundation for understanding entrepreneurship and innovation policy. The review covered global best practices, regional case studies, and specific challenges faced by Kuwaiti entrepreneurs. Key areas of focus included:

- Kuwaiti government documents
- International reports and publications
- Academic studies that examine the impact of government policies and support on entrepreneurial activities.
- Academic studies that identify and analyze barriers to innovation within entrepreneurial settings.

The findings from the literature review were used to inform the development of the survey and interview questions in the mixed-methods study. Understanding the current discourse on entrepreneurial ecosystems and government support enabled the formulation of contextually relevant questions.

1.3.3 Research Methods: Quantitative Component - Survey Design and Data Collection

The quantitative data for this study was collected through the Entrepreneurial Innovation Survey (EIS), a structured survey utilizing a range of question formats to gather varied insights and distributed to entrepreneurs across Kuwait. The survey included 19 questions designed to capture a broad range of factors including the level of operational innovation, awareness of government policies, and the types of governmental support needed.

The survey aimed to gather comprehensive data on innovation within the Kuwaiti business environment, identifying key motivations and barriers such as financial constraints, regulatory hurdles, and market uncertainties. It was conducted online, with invitations sent via email and

social media platforms to a pre-identified list of businesses across various sectors. The final dataset consisted of responses from 153 entrepreneurs, providing a cross-sectional snapshot of the current state of entrepreneurial innovation in Kuwait.

1.3.4 Research Methods: Qualitative Component - Expert Interviews

To complement the survey data, in-depth semi-structured interviews were conducted with 11 government officials from 9 institutions who are directly involved in the development and support of the entrepreneurial ecosystem in Kuwait. This includes officials from:

1. General Secretariat of the Supreme Council for Planning and Development (GSSCPD)
2. National Fund for SME Development (NFSD)
3. Kuwait Institute for Scientific Research (KISR)
4. Sabah Al-Ahmad Center for Giftedness and Creativity (SACGC)
5. Industrial Bank of Kuwait (IBK)
6. Kuwait University (KU)
7. The Public Authority for Applied Education and Training (PAAET)
8. Kuwait Foundation for the Advancement of Sciences (KFAS)
9. Kuwaiti Union of Professionals for Small and Medium Enterprises

These interviews aimed to gather expert opinions and insights into the government's role in facilitating entrepreneurship and innovation, and lasted approximately 60 minutes to 180 minutes. The interviewees were selected based on their roles in relevant ministries and departments, ensuring a comprehensive view from those who shape policies and programs. The interview guide focused on the following themes:

- Perspectives on the effectiveness of current governmental support programs for entrepreneurs.
- Challenges and successes in implementing policies intended to enable innovation.
- Views on the potential improvements or changes needed in the approach to supporting entrepreneurs.

2. LITERATURE REVIEW: INNOVATIVE ENTREPRENEURSHIP ENABLEMENT POLICY

2.1 The Significance of Entrepreneurial Ecosystems and the Entrepreneurial State

Development of an effective entrepreneurial ecosystem is important as an enabling measure for private sector diversification. Mason and Brown have defined an entrepreneurial ecosystem as consisting of a:

...set of interconnected entrepreneurial actors (both potential and existing), entrepreneurial organizations (firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies) and entrepreneurial processes (the business birth rate, numbers of high growth firms, levels of 'blockbuster entrepreneurship', number of serial entrepreneurs, degree of sell out mentality within firms and levels of entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the ... local entrepreneurial environment (Mason & Brown, 2014).

Regarding the question of why an ecosystem of firms is so important, the aim is to benefit from agglomeration economies (Glaeser, 2010). These are a range of positive externalities which flow from geographic concentration of research and economic activities and the "knowledge spillovers" that emerge from the diffusion of information (Glaeser et al., 1992). According to the Marshall-Arrow-Romer model, it has been found that the concentration of firms in accordance with areas of specialization facilitates these positive externalities (Glaeser et al., 1992). Such clustering also provides for the development of specialized labour markets and supply chains to meet the requirements of specific sectors (Krugman, 1991). By this theory, it is essential not only that entrepreneurship is enabled in a general sense, but also that a sectoral perspective is taken even in the development of enabling initiatives.

As a starting point, it's important to ask what the appropriate role is for the state in enabling entrepreneurship. Policy positions differ depending on whether it is believed that the free market is best positioned to enable entrepreneurial activity through a low-taxation, low-regulation

environment; or whether it is believed that governmental action is essential in directing public resources towards specific developmental objectives.

Mazzucato's *The Entrepreneurial State* (Mazzucato, 2013), sought to provide a clear justification for governmental intervention in enabling innovation, entrepreneurship, sustainable development, and growth. The entrepreneurial state paradigm builds on studies in industry dynamics which have documented that businesses tend to enter new sectors only after the public sector has absorbed the high risk and uncertainty associated with these industries, particularly in capital-intensive areas (Mazzucato & Penna, 2016; Vivarelli, 2013; Dossi & Lovallo, 1998).

In the context of the 4th industrial revolution (4IR), it is increasingly clear that the state must play a constructive role in not only removing the barriers to innovation, but also in envisioning the emerging economy. A "mission economy" (Mazzucato, 2021) oriented innovation policy can provide the strategic direction needed to stimulate radical technological advancement (Freeman & Soete, 1997). Mission-oriented innovation policies focus on achieving specific objectives and providing explicit technological and sectoral directions (Ergas, 1987). This approach goes beyond levelling the playing field to actively steering innovation efforts towards the desired mission, recognizing that it is not the question of whether choices must be made, but how a direction can be chosen that can serve the public interest (Mazzucato & Perez, 2015).

Creating an innovative entrepreneurial ecosystem requires clear vision and strategy on behalf of the government. Research states that:

A coordinated policy approach is needed to support the scaling up of SMEs and start-ups. Institutional and regulatory settings are crucial, as well as policies to ease SMEs access to markets and strategic resources for scaling up (Organisation for Economic Co-operation and Development [OECD], 2019).

Central to this is the work of developing an interconnected network among key entities which serve to "[strengthen] partnerships between SMEs, large firms, investors, universities and research centres, including at the local level." (OECD, 2019). There are a range of institutions designed to undertake different functions in the development of the Kuwaiti entrepreneurship ecosystem, including (but not limited to) the General Secretariat of the Supreme Council for Planning and Development (GSSCPD), the National Fund for SME Development (NFSD), and the Kuwait Institute for Scientific Research (KISR). Alongside these institutions, the Government of Kuwait

has undertaken a range of policy reforms designed to incentivize entrepreneurship, for example, through the Kuwait Direct Investment Promotion Authority (KDIPA), established by Law No. 116 of 2013. KDIPA's role is to attract high-value direct investments and improve the business environment.

As will be discussed later in the paper, Kuwait faces the challenge not only having to rationalize its public finances, but also having to respond to the impact of 4IR technologies. Building a sustainable foundation for future generations has been a core priority of Kuwaiti governance since the establishment of the state. The need for a mission focused innovation policy which can focus public efforts towards this goal is of increasing importance.

2.2 Interconnection of Innovation and Entrepreneurship

For the purposes of this research, the concepts of innovation and entrepreneurship will be regarded as mutually implicated. The state cannot aim to enable entrepreneurship as such, but must enable those entrepreneurial activities which are the most innovative, with the highest potential to positively disrupt the economy. The classical definition of innovation provided by Joseph Schumpeter centered on the concept of "creative destruction". Here, the entrepreneur acts as the vehicle of innovation within the capitalist system, driving increases in efficiency and productivity. Schumpeter defined innovation as the: "...changes in the methods of supplying commodities, technological change in the production of commodities already in use, the opening up of new markets or of new sources of supply, improved handling of material and the setting up of new business organizations." (Schumpeter, 1939, p. 80). The scope of innovation activities described by Schumpeter indicates why entrepreneurship and innovation are fundamentally connected, and how they serve as key endogenous factors for economic growth through the development of a knowledge-based economy [KBE]. (Lucas, 1988; Romer & Rivera-Batiz, 1991).

Based on the 2021 OECD Review of Innovation Policy in Kuwait there are several policy challenges obstructing the development of an innovative entrepreneurial ecosystem, most importantly in the area of governance and financing (OECD, 2021). Currently, the Kuwait Foundation for the Advancement of Sciences (KFAS) benefits from a mandate where Kuwaiti shareholding companies must allocate 1% of their net profits to the foundation (post statutory reserve transfers and adjustments for carried forward losses). Despite this, there is a need for a more comprehensive set of policy interventions to incentivize research investments. According

to OECD analysis, “the STI investment and reform initiatives in the New Kuwait Development Plan are too little and planned too late to achieve Kuwait’s goal of becoming a knowledge economy by 2035” (OECD, 2021).

To establish a diversified, knowledge-based economy by 2035, a sense of mission, urgency, and wider participation is required. This is why the initial emphasis in the OECD recommendations is on raising overall awareness and reducing barriers to innovation. Shifting to a more competitive, entrepreneurial culture requires a comprehensive whole-of-government and whole-of-society approach towards addressing this critical challenge. Research undertaken by Arman et al (2021) highlighted the key obstacles to innovation activities in Kuwait. Of the obstacles, lack of information on technology and the challenge of meeting human capital requirements for the development of innovative enterprises were two of the critical obstacles which must be addressed. This study found that “...a core theme was the unsuitable supply of human capital by the Kuwait’s education and training system, a pillar of the NSI as a whole.” (Arman et al., 2021, p. 188).

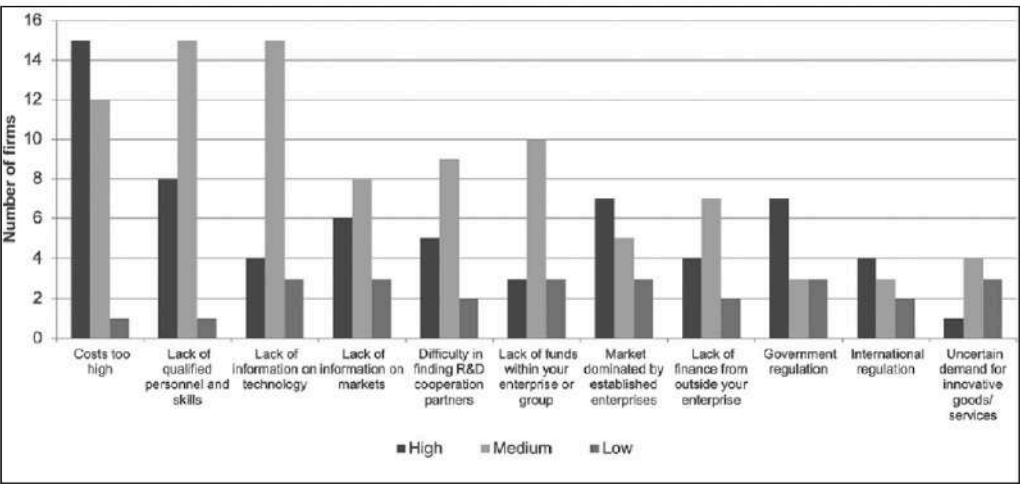


Figure 1: Obstacles hampering innovation activities., Source: Arman et al, 2021

The 2023 Global Innovation Index provides a detailed picture of another aspect of developing an entrepreneurial innovation ecosystem, the specific innovation inputs and outputs of the Kuwaiti economy. Kuwait is 64th among the 132 economies surveyed. It is 45th among the 50 high-income group economies (World Intellectual Property Organization [WIPO], 2023). As can be seen in Figure 2, Kuwait performs below the level expected in terms of innovation development relative to GDP:

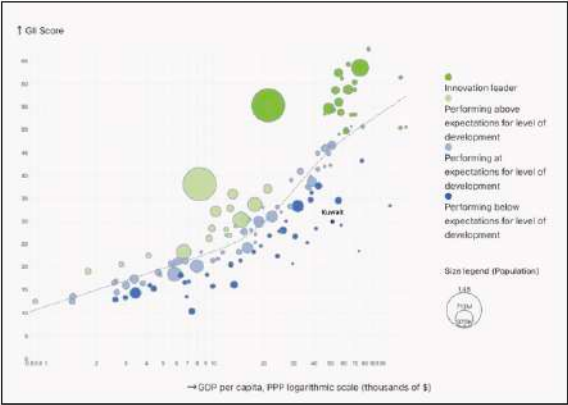


Figure 2: GII Expected vs. observed innovation performance

Kuwait has weaknesses in terms of FDI net inflows as a % of GDP (123rd out of 132 countries); patents by origin as contributors to GDP (117th out of 132 countries); domestic industry diversification (102nd out of 132 countries); and unicorn valuation as a % of GDP (48th out of 132 countries) (WIPO, 2023). This underperformance is driven by underinvestment in R&D as a % of GDP, estimated at 0.187% GDP in 2020, placing Kuwait 90th in the index.

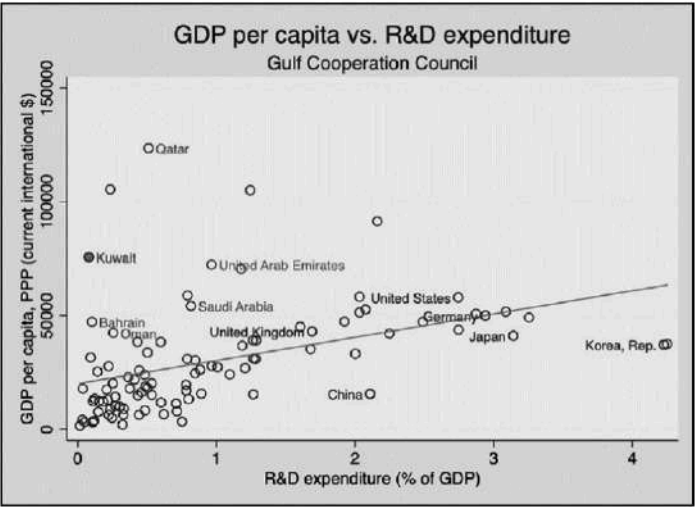


Figure 3: Kuwait and selected countries GDP per capital vs. R&D expenditure, Source: Arman et al, 2021

In Kuwait, spending on R&D was estimated at between KWD 120 million to KWD 135 million (or 0.33-0.37% of GDP) (WIPO, 2023). This is less than half of what Saudi Arabia and the UAE invest in R&D. This underinvestment has had an impact on high-tech exports. The GCC (and the MENA region more broadly) is characterized by low technology development activity. Kuwait's high-tech exports were estimated at 129,706,672 USD in 2020, scoring 99th on the indicator.

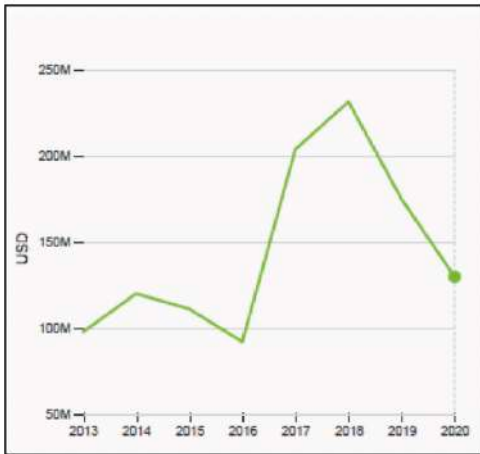


Figure 4: Kuwait's High Technology Exports in millions of \$USD

Despite the human capital challenges discussed earlier, Kuwait invests significantly in its education and human capability development, with an estimated expenditure of 5.5% of GDP (OECD, 2021). Bibi Alajmi argues that: "For Kuwait to compete in the global economy, they need to ensure that their higher education system supports the creation of a skilled workforce that can continuously adapt to the changing needs of the new KBE." (Alajmi, 2023). A critical element of supporting this shift is the reform of existing institutions, and the creation of new institutions to ensure that Kuwait receives an effective return on investment for its human capital expenditures, expenditures which should underpin the research-to-enterprise pipeline.

Pushing innovations through the cycle of technology maturation (through discovery, development, system testing, demonstration, to commercialization) requires the interaction of government, private sector, and research institutions in what has been described as the "triple-helix" model of innovation (Etzkowitz & Leydesdorff, 1995).

As was discussed earlier, there is debate amongst different schools regarding the appropriate role of government action. However, when we speak of the high-growth, highly innovative emerging economies, they commonly share characteristics in terms of central governmental planning and financing. The creation of national R&D funds to drive investment in research which can lead to commercializable innovations has been commonly adopted. An instructive example in this area is China's Innovation Fund for Small and Medium Technology-based Firms (Innofund), which has had a significant impact in stimulating R&D activities among SMEs (Guo et al., 2016). Innofund-backed firms in China demonstrated higher levels of both commercialized and technological innovation compared to non-Innofund-backed firms, an indication that government actors are capable of designing interventions in innovation financing which identify high-growth potential enterprises.

The GII reveals a picture of Kuwait as underperforming its status as a high-income economy in the areas of entrepreneurship and innovation. Within this ecosystem, there is an absence of institutional steering and engagement, which is demonstrated indirectly in their report through the wide range of missing and outdated data for key areas of ecosystem performance evaluation. Institutional reorganization is essential to the effective implementation of policy interventions in this area. The creation of a National Entrepreneurship Strategy would be an important step towards coordinating efforts in this area.

2.3 Identifying Innovative Enterprises

Entrepreneurship studies have increasingly identified young, innovative companies (YICs) as the key category for policymakers to target in this area, covering those firms with the potential to “develop innovations for commercial applications and create value for society” (Mas-Tur & Moya, 2015). The dominant characteristics of these YICs are responsiveness to technological innovations, and competence in commercialization. These firms have been shown to possess higher levels of productivity and have a disproportionate impact on employment. In OECD countries, around 35 percent of net job creation between 2002 and 2011 was led by firms under 5 years old (McKinsey & Company, 2021).

Being selective at the level at which targeted institutional support is provided, specifically in relation to high-growth potential ventures can: “have a direct and disproportionate impact on employment and competitiveness, with some 50% of the new jobs created coming from only 4% of the firms” (OECD/IDRC, 2013). Given their importance, how can entrepreneurial activities worthy of support be identified?

There is no universal definition to identify firms with high-growth potential. Measures range from those based on employment growth, growth in turnover, market share, profitability, and total assets. The OECD specifies an enterprise as “high-growth” if it maintains average growth of 20% for 3 successive years and employs at least 10 workers (EUROSTAT-OECD, 2007). The Birch Index (Birch, 1979, p.302), utilizes both relative and absolute indicators of growth, which is of importance as the questions which must be answered concern not only the individual characteristics of the firm; but also sector specialization, and the global trends that influence the potential for growth.

McKinsey placed specific importance on the need to develop “homegrown global firms”, especially in innovation industries. As they argue: “[s]uperstar firms are key to driving innovation, employment and productivity in the economy.” (McKinsey Global Institute, 2018). Their research has found that ‘superstar’ firms (the top 10% of enterprises) contributed around 80% of total economic profit (McKinsey Global Institute, 2018). To be part of global value creation, a state must be home to not just national champions, but global leaders. A challenge that Kuwait faces regarding

developing “superstar” firms is the fact that these enterprises “require large markets built on large populations” (McKinsey Global Institute, 2018). 82% of superstar firms operate from countries with populations over 50 million and “...account for a disproportionate share of economic profit and act as important drivers of innovation, employment, and productivity.” (McKinsey Global Institute, 2018). This underlines the significance of embedding entrepreneurship ecosystem development within the regional context.

In line with global indicators, “the business environment in Kuwait is still not conducive to innovation.” (Ghura, Harraf, & Coduras, 2021). In the words of Ghura et al: “While Kuwait has promising diversification opportunities, its ability to achieve sustainable and inclusive growth will depend on... deep-rooted structural adjustments across the political economy.” (Ghura, Harraf, & Coduras, 2021). Without innovative superstar firms, Kuwait will be unable to transition to a market-led, entrepreneurial economy. The challenge in Kuwait is not merely one of identifying YICs, but also effectively incubating the next generation of innovative enterprises. Here, there are several difficult questions regarding the innovativeness of the entrepreneurial ecosystem. In the Global Entrepreneurship Monitor (GEM) 2020/21 Kuwait Report (Ghura, Harraf, & Coduras, 2021, p. 75), 71.8% of entrepreneurs said that they are not offering a new product or service, even to the local market. Of those who claimed to be developing an innovative product or service, only 4.6% said that they are offering something new to the world. 17.4% stated that they are offering something new to Kuwait, whilst 6.2% stated that they are offering a new product or service to their neighborhood (Ghura, Harraf, & Coduras, 2021, p. 75).

Absence of innovativeness is not limited to the development of products and services, but also concerns the processes utilized as part of business operations. Here, the statistics were slightly better, but demonstrated a similar pattern. 63.6% of individuals reported that they were not adopting a new product or service. High-costs and informational barriers to adoption often disincentivize SMEs from investing in new technologies. In the effort to accelerate the development of innovative, high-growth potential SMEs, specific attention must be paid to developing mechanisms that can support entrepreneurs in accessing the skills required to undertake digital transformation processes.

2.4 Forms of Entrepreneurship Support and Certification Effects

SMEs require a diverse range of services that include both financial products (such as equity and debt financing) and business support services (such as market research, legal and accounting services, and development training) to facilitate their growth and ensure sustainability. A specific focus is required for each of the phases within the entrepreneurial life-cycle, so support can be targeted (Akinyemi & Adejumo, 2018).

A valuable reference point here is the European Commission’s SME Instrument. Launched in 2014, it aims to support the growth of innovative European SMEs by removing financial barriers when bringing new ideas to market. It focuses on supporting SMEs during the exploitation and scaling-up stages rather than the exploration and pre-commercial development phases (Mina et al., 2021).

Startup Development Stages			
		Government Support	Funders Support
Outreach	Idea formation	Promote entrepreneurship education	Financial literacy and entrepreneurship awareness programs
	Problem validation	Facilitate Ideation: Hackathons, startup Weekends, etc.	Networking opportunities to connect with potential mentors, advisors, and industry experts
	Team establishment	Promote innovation and entrepreneurship culture	
Pre-start	Idea development	Offer entrepreneurship training and education	Seed funding for idea validation and product development
	Business modeling	Facilitate proof of concept and proof of business	Coaching to refine business ideas and plans
	Problem/Solution fit: prototyping	Facilitate Business Modeling	Access to incubators or accelerators providing resources, infrastructure, and networking opportunities
	Team Formation	Validate MVP	
Launch	Business Creation	Provide Early-Stage Financing	Seed funding to launch the business
	Early-stage fundraising	Facilitate access to client and Go-To-Market	Cover initial operational costs
	Initial Go-To market: MVP development	Strategic partnerships	Access to angel investors or venture capital firms
		Housing	Guidance on legal and regulatory compliance
		Operation set up and labeling	Support in building a strong founding team and advisory board
Growth	Product/Market Fit	Facilitate access to Finance	Series A, B, or C funding rounds for scaling operations and market expansion
	International Go-To market	Facilitate internationalization via events, strategic partnership, etc.	Strategic guidance and industry insights from investors
	Expansion and scaling	Provide operational support	Assistance in negotiating partnerships and strategic alliances
			Exit strategies and assistance with mergers, acquisitions, or public offering

Figure 5: Start-up enablement lifecycle, Source: European Commission SME Instrument

By having a distinctive approach to each phase of enterprise development, governmental efforts in this area can focus encouraging the growth of small firms into medium ones, before shifting to a separate set of initiatives and support mechanisms to encourage the growth of medium-sized firms into superstar firms.

Specific attention must be paid to the effective financing of innovative enterprise. Market failures in the allocation of capital to effective start-ups have led to a reluctance by banking institutions to lend to SMEs, despite governmental efforts to increase access to debt-based financing. Challenges in the capital structure of SMEs are not limited to Kuwait, but are widespread. The 2022 G20/OECD High Level Principles of SME Financing framework places a new emphasis on leveraging the role of financial technologies, strengthening the availability and uptake of sustainable finance for SMEs, strengthening the resilience of SME finance in times of crisis (Koreen et al., 2018).

OECD research indicates that most national governments in highly developed countries implement a range of financing mechanisms to support innovative enterprises (OECD, 2014). Of specific importance is the role played by grants, loans or guarantee schemes. These forms of direct support for innovative enterprises place the state under exposure to greater risk, but are essential when there are insufficient incentives for private sector financing of innovation.

Credit guarantee schemes play a distinctive role in facilitating private sector lending to SMEs, and have been demonstrated to improve SME performance (Xiang & Worthington, 2017). Such guarantees have been shown to raise the level of SME debt in various countries, indicating their effectiveness. Direct support, through instruments such as subsidies, can have two types of effects on enterprises:

First, it can impact, among other things, the revenue of firms... their survivability, their growth... their productivity... or their patent activity...
Second, it can impact their access to external finance... through different channels (Chiappini et al., 2022).

A critical element when deciding to fund specific SMEs relates to whether they are involved in what can be described as innovative activities. State subsidies to enterprises can play an important role in signaling suitability to other economic actors within the banking system. This “certification effect” has argued by some to lead to “better access to both debt and equity financing” for specific categories of enterprises (Chiappini et al., 2022).

Certification effects can be generated by the effective administration of state support mechanisms. By holding meritocratic competitions for support, and by having a rigorous selection mechanism, provisions of funding to specific enterprises can serve "...as a signal that conveys market-relevant information about the quality of the recipient firm" (Chiappini et al., 2022). Such a signal is only provided when the selection of specific enterprises is perceived by the market as effective (Lerner, 1999). As stated by Bloom et al., effective interventions in this area require not only the provision of financial support, "but also a mechanism to identify and select higher-quality investments" (Bloom et al., 2019). This places a distinctive pressure on the relevant state entities to ensure that they have the technical expertise and operational models in the relevant institutions (such as the NFSD and KISR), to effectively administer grants and loans.

3. LITERATURE REVIEW: VISION 2035 AND THE NATIONAL FUND FOR SME DEVELOPMENT

3.1 Strategic Urgency of Developing Kuwait's Entrepreneurial Ecosystem

In the Kuwait Public Policy Centre (KPPC) White Papers for the Economic Growth Pillar of Vision 2035, policy options for entrepreneurship enablement were analyzed in depth (KPPC, 2019). KPPC identified the following factors as common to countries which successfully transitioned into advanced knowledge economies:

1. Identifying the market for the right type of technology and innovation for commercial purposes at an early stage; openness to the outside world to trade and inviting labor with the right skill sets and ideas.
2. Allowing government to play an important role in terms of support and funding for the right sectors for growth.
3. Effective, entrepreneurial innovation
4. Letting institutions take a leadership role; and
5. Promoting a sense of national mission and developing national consensus (KPPC, 2019).

The last point, concerning developing a sense of national mission, is one of the most important and often overlooked elements of the development mix. The energy and commitment of Kuwaiti society must be mobilized towards the goal of diversification. Awareness must be created that diversification is essential due to the threat overreliance on natural resources presents to the state of Kuwait itself. Oil revenues represent 90% of state revenue, 90% of exports, and 50% of GDP (GSSCPD, 2020). The deficit remains a structural problem for the state, as Kuwait entered fiscal deficit in 2014/15, and has remained in it ever since (apart from in 2022/23).



Figure 6: Kuwait Fiscal Balance, Source: Kuwait Ministry of Finance 2023/4 Budget (GSSCPD, 2020).

Economic rationalization, diversification, and empowering the private sector is crucial as 80% of state expenditures are allocated to covering salaries and subsidies alone (Ministry of Finance: State of Kuwait, 2024). A paper by leading Kuwaiti academics titled “Before It’s Too Late”, described the challenges in this area:

The current state of the Kuwaiti economy is unsustainable. The affluent privileges that generations of Kuwaitis have grown accustomed to since the discovery of oil are under threat of extinction... [this raises] the prospect of an economic catastrophe that will lead to a radical and permanent change in the lives of Kuwaitis, their relationship with the state, and their reassurance for the well-being of future generations (KuwaitImpakt, 2020).

Unless this pattern of fiscal spending is significantly rebalanced in the coming years, Kuwait will exhaust the national net reserve funds (General Reserve Fund and Future Generation Fund) by 2035. Reform efforts must be understood in terms of the serious implications of what will happen without significant economic rebalancing. Kuwait possesses many advantages that enable it to rationalize its economy in the medium term. The IMF’s Executive Board stated that given its “... large fiscal and external buffers, it can undertake needed reforms from a position of strength.” (International Monetary Fund [IMF], 2023). However, this opportunity is at risk of passing by given the lack of urgency around efforts to effectively develop an innovative entrepreneurial ecosystem.

3.2 Vision 2035: Entrepreneurship Policy in the Kuwait National Development Plan

The aim of the Kuwait National Development Plan 2020 – 2025 is to “transform Kuwait into a financial and trade hub, attractive to investors, where the private sector leads the economy”. Economic diversification is not a secondary element of Vision 2035, but is at the core of the “New Kuwait” it seeks to develop.

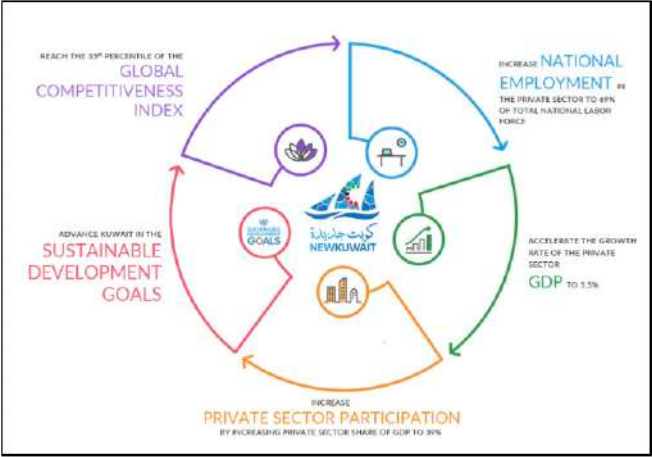


Figure 7: Vision 2035 aspirations, Source: KNDP, 2020

Despite the productivity advantages possessed by large enterprises, SMEs are a dominant force for employment in OECD countries, accounting for:

99% of firms in OECD countries, approximately 60% of employment and 40-60% of value added across these countries. Their share in GDP represents 49% in Austria, 42% in France, 49% in Japan, 57% in Spain and 45% in the United States (OECD, 2019).

For Kuwait to diversify economically, entrepreneurial activity will have to significantly expand. The challenge ahead is demonstrated by the fact that the contribution of SMEs to GDP and employment in Kuwait is not only behind international benchmarks in relation to emerging and developed markets; but also lags behind the GCC average, as indicated in figure 8 below. The drive towards diversification is not unique to Kuwait, and an additional complexity is raised by the economic changes taking place in Saudi Arabia and the United Arab Emirates, as neighboring countries seek to move away from reliance on natural resource rents.

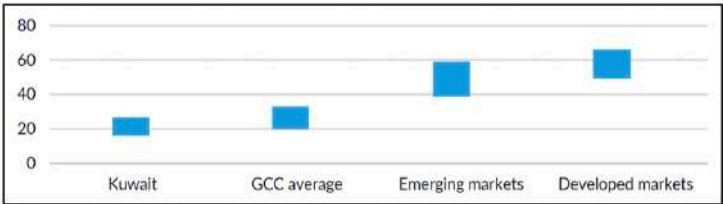


Figure 8: SME contribution to GDP (in %, Kuwait vs. benchmarks), Source: KNDP, 2020

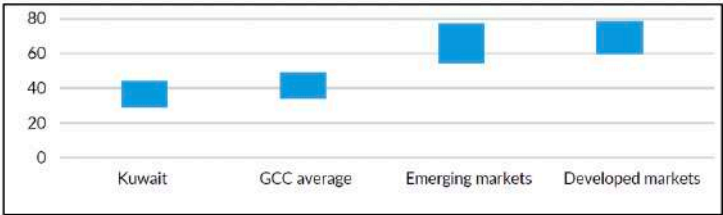


Figure 9: SME contribution to the labour force (in %, Kuwait vs. benchmarks), Source: KNDP, 2020

16,885 Kuwaitis are registered under Chapter Five as self-employed. Women comprise 57.1% of owners in this classification. In non-government sectors, 50,537 Kuwaitis are employed. Over 80% of Kuwaiti nationals (323,300) in the active labor force work in the public sector. Vision 2035 targets a reversal of this, with 69% of Kuwaitis employed in the private sector. This will require a shift from 74,000 Kuwaitis working in the private sector, to 230,000 (GSSCPD, 2020). The need for private sector job creation is particularly intensified by the fact that young Kuwaitis (18-24) have an unemployment rate of 27%, four times the total unemployment rate amongst nationals. Youth unemployment poses significant challenges as 43% of the Kuwaiti population is estimated to be under 30 by 2030 (GSSCPD, 2020). Finding meaningful employment opportunities, and developing a policy framework which utilizes the talent of all Kuwaitis is a key priority for public policy, and is growing increasingly complex as 4IR technologies raise the possibility of increased unemployment globally. Enablement of innovative entrepreneurship and SMEs is a critical vehicle for responding to these challenges.

3.3 National Strategic Objectives Related to Entrepreneurial Ecosystem Development

Within Vision 2035, Program 3 in the KNDP focuses on private sector enablement. It aims to “boost private sector growth by improving the business environment, and by enhancing innovation capability and international competitiveness”. Private sector contribution is targeted to grow from a baseline of 30% of GDP to 40% by 2035. The KNDP maps its policy initiatives in Program 3 according to three desired outcomes:

1. High Private Sector GDP Contribution;
2. Conducive and Fair Business Environment;
3. World-class Specialised Knowledge Clusters.

The interconnections between these pillars are fundamental, and their interdependence is outlined in figure 10:

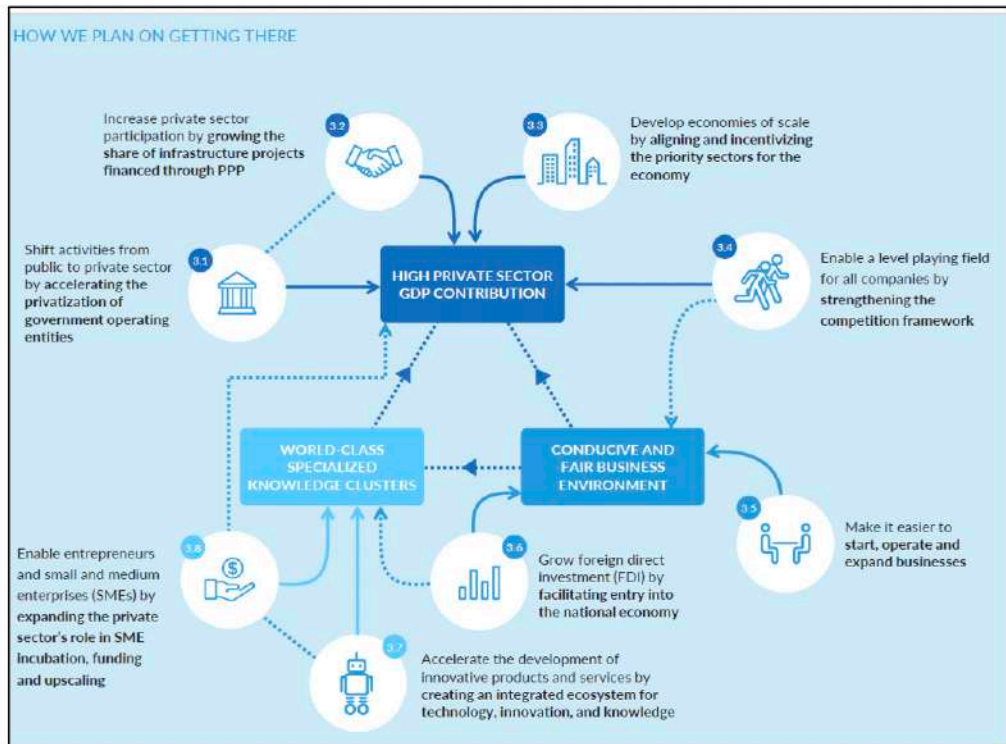


Figure 10: Implementation Map for Development of the Kuwait Private Sector, Source: KNDP, 2020

There are two objectives under Program 3 of the KNDP which are of particular relevance to entrepreneurship policy interventions. Objective 3.7 aims to: “Accelerate the development of innovative products and services by creating an integrated ecosystem for technology, innovation and knowledge”. This is closely connected to Objective 3.8 which aims to: “Enable entrepreneurs and SMEs by expanding the private sector’s role in SME incubation, funding and upscaling”. The idea behind these objectives is to develop an entrepreneurial ecosystem which can “focus on priority sectors and areas of innovation that provide Kuwait with regional and global competitive advantage.” (GSSCPD, 2020).

Efforts to interlink the strategic objectives of KISR with those of the NFSD are an important step towards integrating entrepreneurship and innovation public policy, specifically as it is not a strategic priority to support entrepreneurship as such, but rather to support the creation of enterprises which have the potential to increase the share of R&D intensive exports. Involving KISR more closely in the work of the NFSD is an essential step as it will provide access to technical expertise which can be utilized in both organizing the work of the institution, and in effectively evaluating the potential of varying enterprises. The desire of Vision 2035 to interconnect the innovation and entrepreneurship ecosystems is

present in two KNDP initiatives under Program 3: Initiative 3 (IBTIKAR), and Initiative 4 (MUBADARA). The NFSD plays the role of implementation partner and owner respectively in these initiatives, and will work closely with KISR in their implementation. IBTIKAR aims to tap into Kuwait's entrepreneurial traditions through "incubators that foster innovation, competition, risk and entrepreneurship". In the MUBADARA initiative, the NFSD is tasked with increasing private sector financing of SMEs, and creating pathways for upscaling high-growth potential SMEs. Further research will be required to track the impact of these initiatives.

3.4 National Fund for SME Development: Context and Challenges

The National Fund for SME Development (NFSD) was created in 2013 to: "...help Kuwait improve its economic growth by supporting the youth, combating unemployment, and enabling the private sector to drive this growth." (Law No. 98 of 2013). Endowed with initial capital of 2 billion KD from the Kuwait Investment Authority (KIA), the NFSD was tasked with serving as the key enabler for the development of an entrepreneurial ecosystem. It was tasked with completing this by:

...identifying and seeking to eliminate government policies, regulations, and procedural inefficiencies, enhancing the capacity for entrepreneurship, making available appropriate financing for new and existing SMEs, assisting in the identification and creation of new markets for SMEs, strengthening existing support services for SMEs and creating new services where needed (NFSD, 2017).

The scope of this mandate has created challenges in implementation. Many initiatives undertaken by the NFSD with international partners (such as incubation hub activities) were not institutionalized into NFSD operations. Furthermore, promising initiatives, such as the online storytelling platform "Kuwait" (developed to highlight experiences of entrepreneurs), failed to be updated and maintained. The NFSD website itself is not regularly updated, and the most recent Annual Report available there is from 2016/17. In response to the prevalence of missing data, the CBK launched the Small and Medium Enterprises Financing Survey in February of 2024 (Central Bank of Kuwait, 2024). It is notable however that the CBK is stepping in to fill a gap in the data that should be provided by the NFSD, as it was an element of earlier strategies that the NFSD would develop a Quarterly Business Condense Survey and SME Condense Index.

In terms of financial services provided in-house, the NFSD started with a loan program for startups and existing SMEs in Kuwait. It defined small enterprises as those with less than 250,000 KD in capital, and 1 to

4 Kuwaiti employees. Medium enterprises were defined as those with capital between 250,000 and 500,000 KD and 5 to 50 Kuwaiti employees. Based on existing data, the average loan size per borrower approved by NFSD was KD 67,800 for small businesses and KD 392,920 for medium-sized businesses (Markaz, 2020, p.5). The pre-COVID terms offered by the NFSD were to provide 80% of financing at a fee of 2%, with commercial banks providing the remaining 20% of financing following market rates. Entrepreneurs were required to provide financing of 20% of the project size, up to a limit of KD 500,000 per company.

From 2016 until suspension of financing due to COVID-19, between 2013 and 2023 the NFSD supported 1,039 entrepreneurs (Othman, 2023). Financing activities have not resumed post-Covid-19. The initial cause for this was due to the number of defaulting payments among the 1,039 entrepreneurs already supported. There is no clear timeline for when project funding will resume, but it will require cabinet approval pending the submission of a new strategy for the NFSD. Although improvements were made in administration post-2017 (such streamlining the process of evaluation and including the participation of Kuwaiti banks, an internal NFSD Committee, and an external technical committee in loan decisions), the case remains that a default rate of 80% is projected on NFSD financed companies. Such a default rate indicates the need for a radical transformation in the process of enabling enterprises. As the OECD states:

The initial design of the National Fund loans with a high projected default rate and no upside for the fund would suggest that entrepreneurial job creation would come at a very high projected cost to the government, which could be comparable to providing a government job (OECD, 2019).

Additionally, lending is overrepresented in sectors without innovative, high-growth potential, with significant overrepresentation of retail and real estate businesses. SME financing is both misallocated and below international norms. The share of SME loans in the overall loan book in Kuwait is 4.7%, compared to an average of 13% in developed countries, and 26% in developing countries (Gulf Bank, 2021).

Sectors	% of SME loan book	% of SME businesses
Whole sale and retail trade	41.4%	38.6%
Real estate & renting	38.7%	27.3%
Manufacturing	9.3%	20.7%
Construction	5.8%	9.9%
Others	4.9%	3.5%

Figure 11: Kuwait sector segmentation of SME loans, Source: Central Bank of Kuwait; Central Statistics Bureau.

The KNDP identified several operational problems with the NFSD, such as: “...slow decision-making, red-tape and over-investment in sectors that add little value to the economy such as restaurants.” (GSSCPD, 2020). After more than a decade of existence, the NFSD has failed to drive the entrepreneurship ecosystem. Some have argued that this is due to it being “tied to shifting economic visions for Kuwait” (Al Sharekh, 2018), and being incapable of independently pursuing the achievement of its overarching objectives. The absence of a clearly defined strategy is notable here, but there are also fundamental human capability deficiencies in the institution.

As part of the Knowledge Economy Index for the Public Sector (KIPS) project (undertaken by the GSSCPD in collaboration with the World Bank), a range of governmental institutions were scored in terms of their knowledge management and human capability development approaches (World Bank, 2022).

★★★★★	Kuwait Investment Authority*	0.84
★★★★★	Central Bank of Kuwait	0.70
★★★★★	KIPIC	0.63
★★★★★	Kuwait Fire Force*	0.62
★★★★	Kuwait Oil Company	0.54
★★★★	Supreme Council for Planning and Development	0.54
★★★★	Petrochemical Industries Company	0.54
★★★★	Kuwait Foreign Petroleum Exploration Company	0.52
★★★★	Kuwait National Petroleum Company	0.50
★★★★	Kuwait University	0.49
★★★★	Kuwait Petroleum International	0.47
★★★★	Public Authority for Industry	0.46
★★★★	Kuwait Institute for Scientific Research	0.45
★★★★	Kuwait Petroleum Corporation	0.44
★★★	National Technology Enterprises Company (NTEC)*	0.36
★★★	Kuwait Anti-corruption Authority (Nazaha)	0.35
★★★	Kuwait Authority for Partnership Projects*	0.34
★★★	Kuwait Ports Authority*	0.32
★★★	Kuwait Airways	0.26
★	The National Fund for SME Development	0.18
	Average	0.50

Figure 12: Kuwaiti Institutions KIPS Ranking, Source: World Bank (2022)

It is instructive that the two highest performing institutions (KIA and CBK) are finance oriented, yet the NFSD (the only other financial institution participating in the study), scored worst out of all participants, and by a significant margin. The NFSD currently lacks the capability to deliver on its critical objective of developing an entrepreneurial ecosystem. As such, comprehensive ecosystem enablement requires dividing its portfolio, creating an action plan to develop the capabilities of the NFSD by leveraging governmental entities with proven capabilities, and private sector institutions with track records of successfully managing SME loan books. It is of particular importance that there is an expanded role for the KIA in building investment capabilities in the NFSD. As a leading national institution, with a reputation for effective governance and administration, KIA can bring the same proven approach to SME investment that led to it becoming one of the leading global investment vehicles.

3.5 Separating the Financing and Development of Innovative Enterprises

Entrepreneurial ecosystem development services can be classified as follows: Equity Products; Debt Products; Business-related Services; and Development & Training Services (Deloitte, 2022). Of urgent importance is the rebuilding of public trust in the financing decisions of the NFSD. The fact that there are no publicly available criteria for how the NFSD determines which enterprises to support undermines confidence. Additionally, if applicants are provided with detailed feedback on their applications, they will have the ability to understand the feasibility of their plans and develop improved business concepts in the future. By transparency in accessing details regarding which companies are funded, prospective applicants will gain insight to the priorities of the NFSD. This can also be emphasized through sectoral financing rounds.

Part of rebuilding trust, in the face of the capacity challenges outlined above, requires narrowing the focus of the NFSD so it can serve as a financier of innovative entrepreneurship. The justification for separating financial services from business support and ecosystem development services in the context of SMEs draws on the differing nature and objectives of these services, and is adopted elsewhere in the region. In Saudi Arabia, Monsha'at serves as the ecosystem enabler; whilst the SME Bank and Kafala provide financing services. The complexity of instruments available in this area requires dedicated specialization (see figure 13). The NFSD (working under a National Entrepreneurship Strategy and supported by KIA) could serve as a pure financial enabler, freeing it to focus on financial product innovation and risk management, which are key to successful SME financing (Shinozaki, 2012). By diversifying the financing instruments available to SMEs, solutions can be provided which meet the requirements of different types of enterprises (Hornuf et al., 2020).

Low Risk / Return	Low Risk / Return	Medium Risk / Return	High Risk / Return
Asset-Based Finance	Alternative Debt	"Hybrid" Instruments	Equity Instruments
<ul style="list-style-type: none">• Asset based lending• Factoring•Purchase Order Finance• Warehouse Receipts• Leasing	<ul style="list-style-type: none">• Corporate Bonds• Securitized Debt• Covered Bonds• Private Placements• Crowdfunding (debt)	<ul style="list-style-type: none">•Subordinated Loans/Bonds• Silent Participations• Participating Loans• Profit Participation Rights• Convertible Bonds• Bonds with Warrants• Mezzanine Finance	<ul style="list-style-type: none">• Private Equity• Venture Capital• Business Angels• Specialised Platforms for Public Listing of SMEs• Crowdfunding (equity)

Figure 13: OECD SME Financing Instruments

Additionally, there is an urgent need to leverage advanced technologies in service of entrepreneurship financing. Studies have highlighted how “FinTech has increased the ability of financial and non-financial institutions to collect and process accurate information about SMEs, thus reducing information asymmetry and transaction costs.” (Sanga & Aziakpono, 2023). Incorporation of FinTech instruments into governmental financing programs can increase the speed and quality of the lending cycle. This is of specific importance in SME lending, where informational asymmetries can present an obstacle to lending. Big data is characterized by the five “V” dimensions “...Volume (high volume of data sets), Velocity (speed of collecting and processing data), Variety (variety of data sets), Veracity (quality of data) and Value (data usefulness)” (Onay & Oztürk, 2018). Building capability in leveraging big data and AI can improve the quality of financing decisions, facilitating landing to YICs. As figure 14 highlights, technological solutions can enable effective responses to the informational and procedural challenges which limit the effectiveness of SME financing.

Area of Improvement	Potential Solution for Banks	Expansion/Enhancement
Data Roadblocks	Rethink the required information to simplify application processes.	Incorporate real-time data analytics for dynamic customer management and risk assessment.
	Adopt insight-based customer segmentation using analytics.	Utilize alternative data more extensively, including social media and online behavior, to enhance segmentation.
	Deploy non-traditional sources of information like utility payments.	Explore the integration of blockchain technology for secure and transparent data sharing.
Process and Operational Roadblocks	Develop differentiated offerings for micro, small, and medium segments.	Introduce flexible financial products like revenue-based financing for more customized solutions.
	Optimize pricing strategies with risk-based pricing.	Implement artificial intelligence models to refine risk assessment and pricing dynamically.
	Improve the consistency of credit decisions through scoring algorithms.	Use big data analytics to continuously update and improve scoring models based on new customer data.
	Select cost-effective distribution channels focusing on digital means.	Develop a multi-channel strategy that integrates digital with traditional channels for wider reach.
	Update processes for timely deployment of funds with automation.	Leverage machine learning for automated decision-making processes to reduce loan processing times.

Figure 14: Technological Solutions for Enterprise Challenges

Separating the financing from business development functions raises the question of ownership of the broader non-finance related enablement services. A recommendation of this paper is the creation of a Public Authority for Innovative Enterprise to serve as an ecosystem enabler, tasked with merging the innovation and entrepreneurship ecosystems in Kuwait. Such an entity could centralize efforts to promote innovation, enhance entrepreneur capabilities, and bridge the gap between various stakeholders in the ecosystem. Such a division would create clear accountability for the delivery of entrepreneurship policy objectives.

As a final macro-level question, there is a need for the Public Authority for Innovative Enterprise to take steps to improve the attractiveness of Kuwait to global talents. Whilst the agendas of workforce localization and the enablement of Kuwaiti nationals is central, attracting entrepreneurial talents from the region and the world is vital for the development of YICs. The existing ban on equity ownership by non-Kuwaitis as a condition of fund support provides a disincentive to attracting high-skilled entrepreneurs. This can be softened by limiting the ban to majority non-Kuwaiti owned enterprises, as enabling equity partnership by high-skilled foreign talent is critical to rapidly scaffold and incubate a vibrant entrepreneurship ecosystem. Drawing in a comprehensive knowledge transfer agenda can create a mutually beneficial outcome for both agendas of workforce localization and global attractiveness.

4. DATA ANALYSIS

4.1 Quantitative Data: Survey Design and Data Collection

The quantitative data for this study was collected through a structured survey distributed among entrepreneurs. This Entrepreneurial Innovation Survey (EIS) consists of 19 questions. It aims to collect comprehensive data on innovation and entrepreneurship in the Kuwaiti business environment. The EIS was designed to capture a variety of factors related to entrepreneurial innovation, awareness, and engagement with government support programs. By identifying the key motivations for increasing innovation and the barriers encountered in developing new proposals (such as financial constraints, regulatory hurdles, and market uncertainties). The survey aims to deepen the understanding of the innovation ecosystem by gathering the perspectives of entrepreneurs themselves.

#	Variable	#	Variable
1	Gender	11	Engagement with Research Institutions or Academics
2	Age Group	12	Government Support Needed
3	Sector of Operation	13	Interest in Partnerships
4	Business Establishment Year	14	Awareness of Government Policies
5	Annual Revenue	15	Most Significant Incentive to Increase Innovation
6	Number of Employees	16	Greatest Obstacle in Developing Innovative Products/Services
7	Offering Innovative Products/Services	17	Access to Financial Resources
8	Scale of Innovation	18	Investment Priority After Funding
9	Utilization of Innovative Technology/Processes	19	Interest in Innovation and Entrepreneurship Support Services
10	Scale of Operational Innovation		

Figure 15: EIS Variables

Results were gathered from 153 entrepreneurs in Kuwait. Participants were randomly selected from a database of registered SMEs, ensuring diverse representation across sectors and business sizes. Efforts were made to canvass enterprises that have been in existence for less than 5 years. The survey targeted a broad range of sectors, with particular attention to retail and services, which dominate the SME landscape in Kuwait.

4.1.1 Quantitative Data: Descriptive Statistics

Of the respondents, 59% were male, 41% were female. Efforts were made to canvas those working in enterprises in existence for under 5 years. By the definition adopted by NFSD, 79% were small enterprises, whilst 21% were medium-sized.

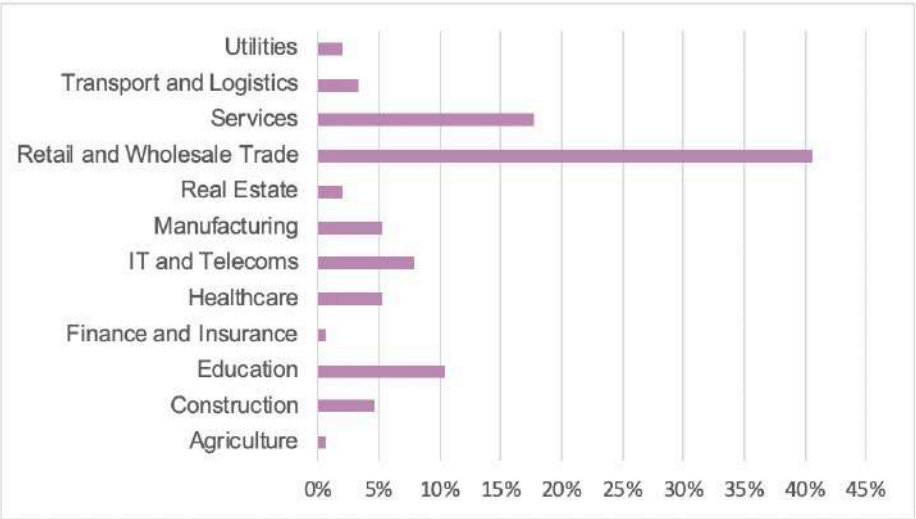


Figure 16: Respondent Sector of Operation

Of the respondents, only 44% reported themselves as offering innovative products/services. 61% reported that they utilize innovative technology or processes in their business operations. To better understand the self-reported scope of innovations, respondents were asked to classify innovations in terms of their scale of significance.

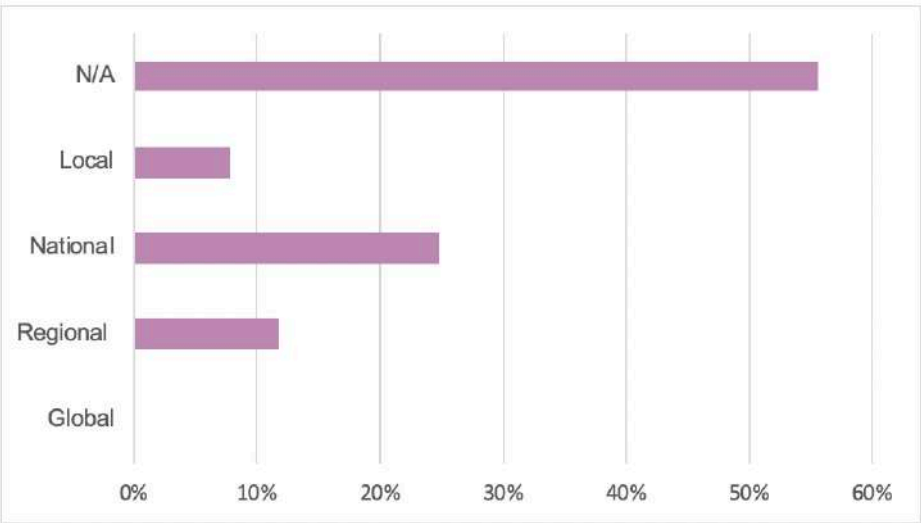


Figure 17: Scale of Innovative Products and Services

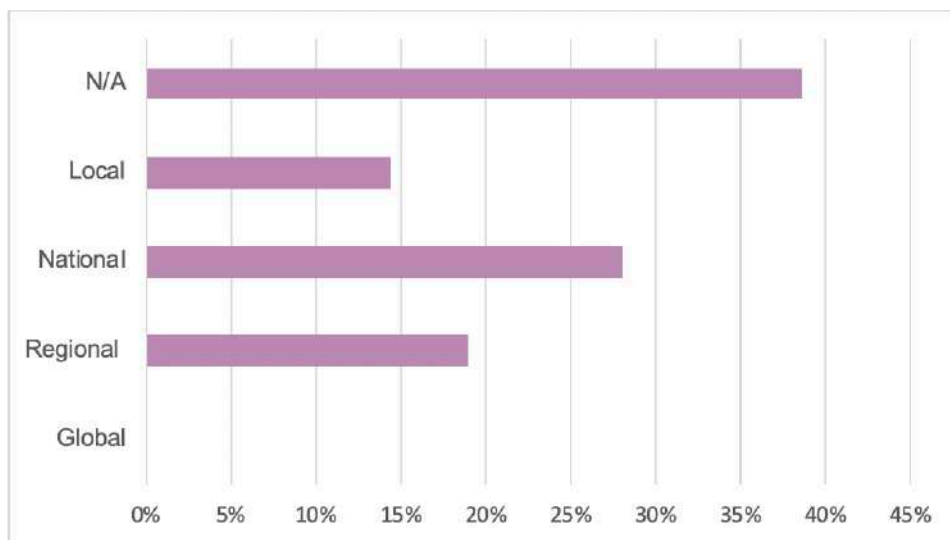


Figure 18: Scale of Operational Innovation

Respondents were asked to classify the innovations as new either at a global, regional, national, or local scale. None of the respondents claimed to have a globally novel product/service, or to have adopted a globally novel operational innovation. Only 12% of respondents claimed to be offering a product/service which is innovative at the regional level; while only 19% of respondents claimed to have adopted an operational innovation which is novel at the regional level.

4.1.2 Statistical Analysis

To assess the relationship between the scale of operational innovation and awareness of government policies, a Chi-square test of independence was conducted. The null hypothesis posited that these two variables were independent, with no association between the levels of awareness of government policies and the scale of operational innovation among businesses. Awareness levels were numerically coded (not aware = 0, somewhat aware = 1, fully aware = 2) to facilitate the use of a One-way ANOVA. This test assessed whether there were statistically significant differences in the mean awareness levels across different scales of operational innovation.

4.1.3 Hypothesis 1

Hypothesis I sought to understand if there is a difference in the types of facilitation measures needed by self-reported innovative enterprises compared with those enterprises who do not self-report innovative activities.

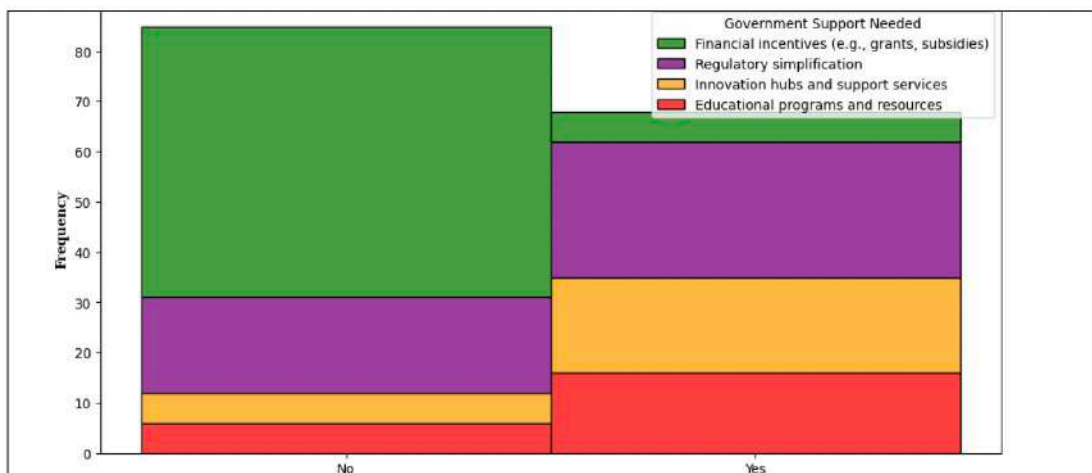


Figure 19, Needed government support by offering innovative products/services

Findings show that enterprises that offer innovative products/services are in need of regulatory simplification similar to the ones utilize innovative technology / processes. Those who don't offer any innovative products or services mostly need financial incentives. By looking at figure 19, innovative enterprises are most likely to need regulatory simplifications. Financial incentives are of most significance for those enterprises which self-report as non-innovative.

4.1.4 One-way Anova Test for Offering Innovative Products/Services

- H0: (null hypothesis) there is no difference in the population means
- H1: (alternative hypothesis): there is difference in the population means

According to the test results p-value is 1.01e-12. Since the p-value (1.01e-12) of the test is less than 0.05. This provides sufficient evidence to reject the null hypothesis. Following this, there is a difference of offering of innovative products/services among different categories of needed support from government.

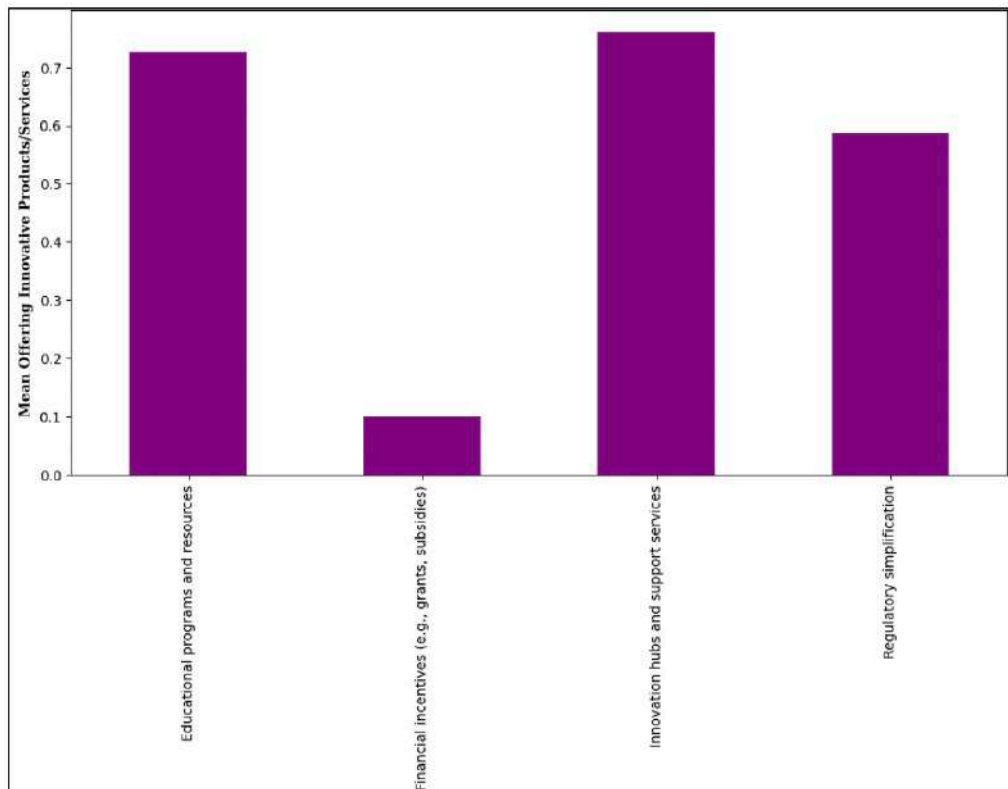


Figure 20, Mean offering of innovative products/services scores by desired government support

According to results, the enterprises that are in need of innovation hubs are most likely to offer innovative products/services and secondly the ones who need educational programs. Enterprises that are in need of innovation hubs and support services and also educational programs and resources are most likely to offer innovative products/services.

4.1.5 Hypothesis 2

Hypothesis 2 states that access to financial resources is an indicator of innovativeness, such that priority support should be given to enterprises which already have strong finances.

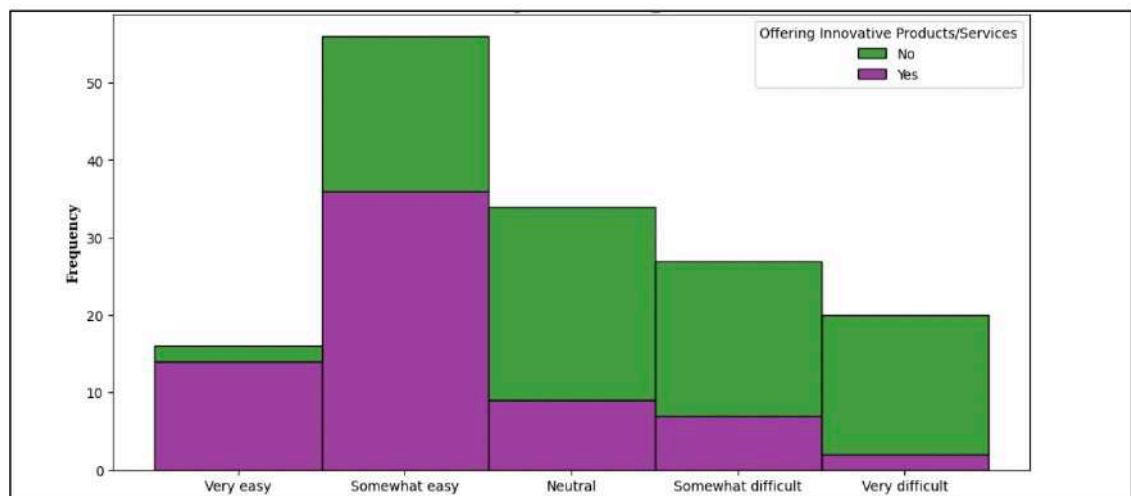


Figure 21, Access to financial resources by offering innovative products/services

Figure 21 indicates that most of the enterprises that find access to financial resources very easy and somewhat easy offer innovative products/services. Most of the enterprises that find access to financial resources very difficult don't offer them.

4.1.6 One-way Anova Test for Offering Innovative Products/Services

- H_0 : (null hypothesis) there is no difference in the population means
- H_1 : (alternative hypothesis): there is difference in the population means

The p-value obtained from this test is $8.12e-9$. Since the p-value ($8.12e-9$) is less than 0.05. This provides sufficient evidence to reject the null hypothesis. Following this, there is a difference in offering innovative products/services among different categories of access to financial resources. Mean offering of innovative products/services by access to financial resources is seen in Figure 22. According to Figure 22, the establishment that find access to financial resources very easy are most likely to offer innovative products/services.

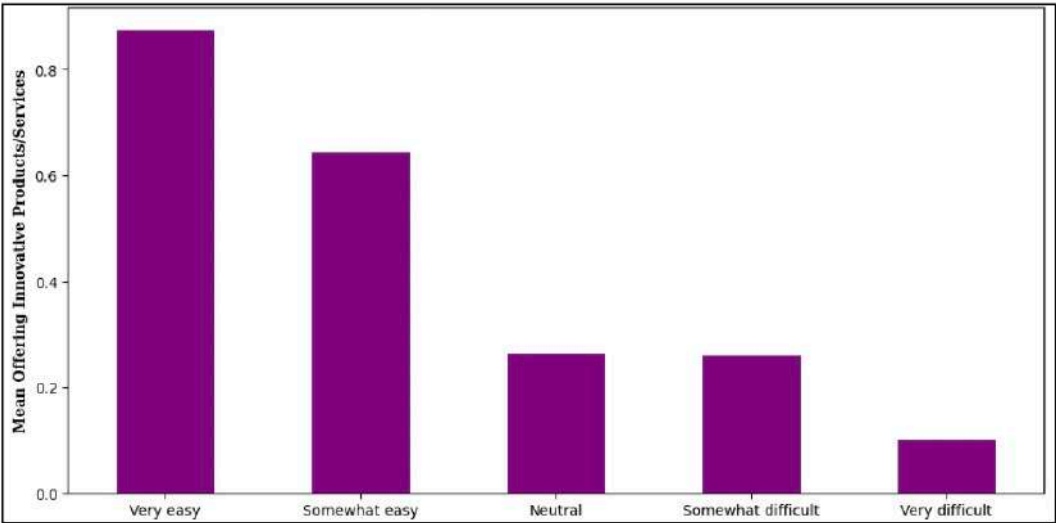


Figure 22, Mean offering of innovative products/services scores by access to financial resources

4.1.7 Hypothesis 3

Hypothesis 3 states that targeted R&D funding and subsidies have the greatest potential for benefiting innovative enterprises. Most enterprises that prioritized R&D funding as crucial to increasing innovation already self-reported as providing innovative products/services.

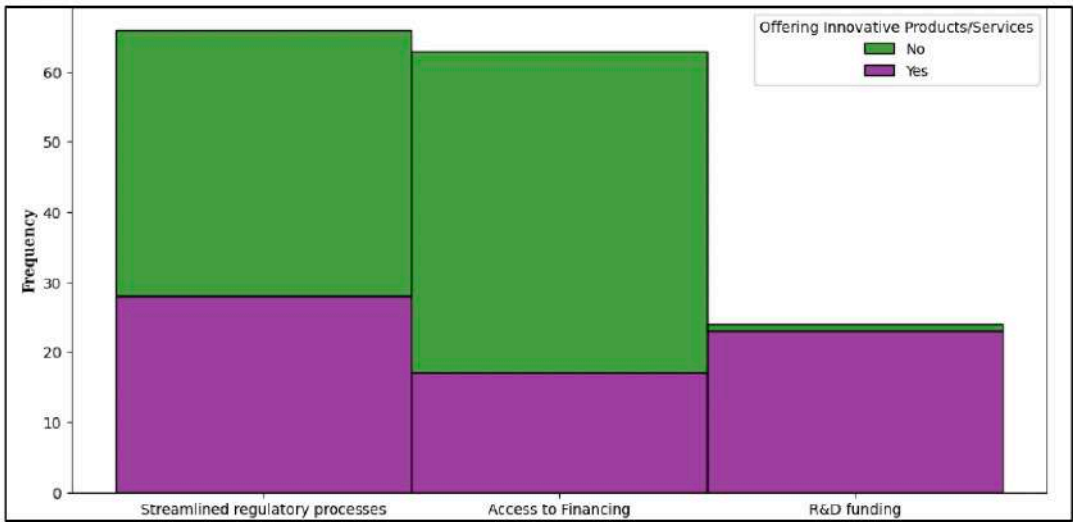


Figure 23, Incentives to Increase Innovation by offering innovative products/services

4.1.8 One-way Anova Test for Offering Innovative Products/services

- H0: (null hypothesis) there is no difference in the population means
- H1: (alternative hypothesis): there is difference in the population means

The p-value obtained from this test is 8.61e-09. Since the p-value (8.61e-09) is less than 0.05. This provides sufficient evidence to reject the null hypothesis. Following this, there is a difference in offering of innovative products/services among different categories of incentives to increase innovation. Mean offering of innovative products/services by of incentives to increase innovation is seen in the Figure 24. According to Figure 41, the establishment that considers R&D funding as the incentives to increase innovation most likely to offer innovative products/services.

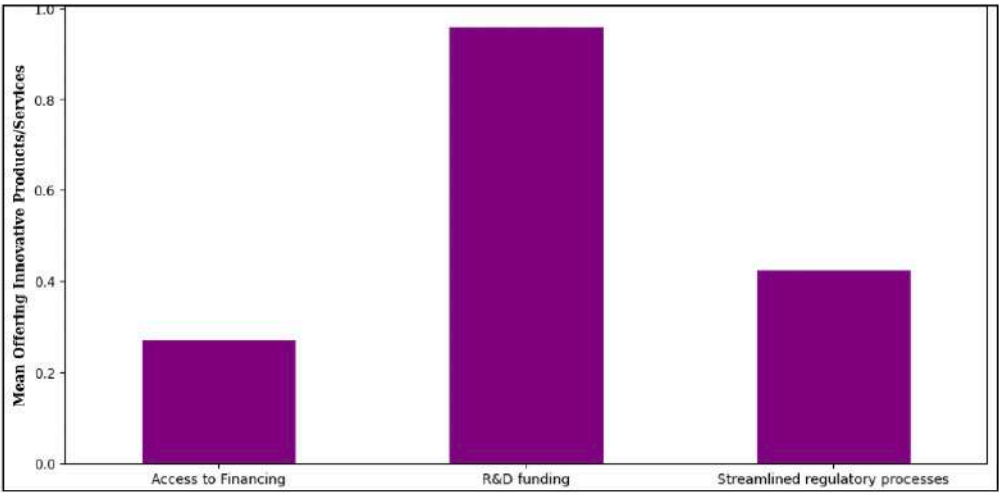


Figure 24, Mean offer innovative products/services scores by incentives to increase innovation

4.1.9 Quantitative Findings

The results from various statistical tests across multiple hypotheses underscore a significant relationship between the type of governmental support needed and the tendency of enterprises to offer innovative products and services.

Hypothesis 1 testing revealed that enterprises offering innovative products or services have a distinct preference for regulatory simplifications and access to innovation hubs and educational programs. The significant difference in the needs for support between innovative and non-innovative enterprises, as demonstrated by the one-way ANOVA (p-value = 1.01e-12), suggests that targeted government policies should prioritize

facilitation measures that enhance the operational environment for these innovators, potentially through easing regulatory processes and providing innovation-centric resources.

Hypothesis 2 testing revealed that enterprises with easier access to financial resources are more likely to offer innovative products or services. This correlation was statistically supported by the one-way ANOVA results ($p\text{-value} = 8.12\text{e-}9$), highlighting that financial ease is an indicator of an enterprise's capacity to innovate. This suggests that while financial support remains crucial, it should be strategically directed to reinforce the financial stability of potentially innovative enterprises. Furthermore, these types of enterprises with access to finance and high-growth potential need to be provided with a diversified range of options, particularly around equity-based instruments.

Hypothesis 3 testing found that R&D funding and subsidies are most effective for enterprises that are already engaging in innovation. The analysis ($p\text{-value} = 8.61\text{e-}09$) confirms that R&D funding is particularly potent in promoting innovative activities among enterprises that consider such funding a crucial incentive.

4.1.10 Limitations of the Study

The EIS, whilst providing us with many valuable insights, faces several methodological limitations. As it relies on self-reporting, there is the risk of misestimation. The survey's cross-sectional nature offers a static snapshot of the entrepreneurial environment at a particular point in time. The survey has limited generalizability, and is contextually and geographically specific to Kuwait. To maintain clarity, the survey has simplified certain critical questions to facilitate analysis. This creates the need for in-depth follow-up questions to be created as supplements to revised versions of the instrument.

A further limitation is the diversity and range of the sample. Due to the challenges in finding entrepreneurs willing to complete the survey, there are limits to the generalizability of the findings in the paper. The findings are still of value as a snapshot of entrepreneurial perspectives, but future research must be undertaken drawing on a more comprehensive sample size to validate the insights drawn from the responses.

These limitations suggest the need for cautious interpretation of the survey results, and it is for this reason that a mixed-methods approach was adopted, seeking to draw on quantitative and qualitative insights as part of a balanced analysis.

4.2 Qualitative Data: Interview Design and Data Collection

This research sought to provide an account of entrepreneurship policy making, drawing on qualitative insights from 11 semi-structured interviews conducted in English and Arabic with key stakeholder involved in the development of an entrepreneurial ecosystem in Kuwait. This includes representatives from key institutions such as:

1. General Secretariat of the Supreme Council for Planning and Development (GSSCPD)
2. National Fund for SME Development (NFSD)
3. Kuwait Institute for Scientific Research (KISR)
4. Sabah Al-Ahmad Center for Giftedness and Creativity (SACGC)
5. Industrial Bank of Kuwait (IBK)
6. Kuwait University (KU)
7. The Public Authority for Applied Education and Training (PAAET)
8. Kuwait Foundation for the Advancement of Sciences (KFAS)
9. Kuwaiti Union of Professionals for Small and Medium Enterprises

The questions assess how those working on the development of a Kuwaiti entrepreneurship ecosystem view the principal challenges, with the aim of enriching the policy and scholarly debate as to how rentier economies such as Kuwait can effectively transition to knowledge-based economies. The practical orientation of this study focuses on generating actionable insights, and for this the perspective of policy makers is essential.

All interviewees were provided with consent forms, and provided the choice as to whether their responses would be anonymous or on the record. To facilitate the sharing of perspectives, participants have been anonymized.

4.2.1 Qualitative Findings

Following the analysis of the interview data, the four key recommendations drawn from the officials are presented in Figure 25.

Respondent	1	2	3	4
Official from the General Secretariat of the Supreme Council for Planning and Development, October 19, 2023	Deeper strategic alignment	Need for human capability building and youth empowerment	Improved selection of initiatives	Greater global integration and talent attractiveness
Official from the National Fund for SME Development, September 10, 2023	Reforming NFSD to enable innovation ecosystem.	Pending strategy approval for startup financing.	Need for whole-of-government approach.	Need for diverse initiatives and transparency.
Official from the Kuwait Institute for Scientific Research, September 21, 2023	Gap between research and commercialization.	Difficulty in technology transfer.	Lack of collaboration between KISR and SMEs.	Limited access to advanced R&D facilities.
Official from the Sabah Al-Ahmad Center for Giftedness and Creativity, October 15, 2023	Aligning programs with high-tech entrepreneurship.	Focusing on high-tech entrepreneurial support.	Integrating with national innovation initiatives.	Need for greater ecosystem integration.
Official from the Industrial Bank of Kuwait, September 11, 2023	Tailoring financial products for startups.	Revisiting risk assessment for innovation projects.	Integrating with national initiatives for innovation.	Prioritizing emerging industry support.
Academic from Kuwait University, November 2, 2023	Evolving curriculum to integrate entrepreneurship.	Strengthening student entrepreneurship support.	Enhancing collaboration with external entities.	Strengthening global integration efforts.
Academic from the Public Authority for Applied Education and Training, September 19, 2023	Bridging skills gap in vocational education.	Cultivating entrepreneurial mindsets in students.	Enhancing industry partnerships for relevant education.	Enhancing industry partnerships for relevant education.
Official from the Kuwait Foundation for the Advancement of Sciences, October 15, 2023	Prioritizing high-potential research projects.	Deepening collaborative ties for applied research.	Fortifying technology transfer support.	Strengthening collaborative ties for applied research.
Representative of the Kuwaiti Union of Professionals for Small and Medium Enterprises, October 17, 2023	Enhancing advocacy for SME development.	Improving information and resource accessibility.	Broadening networking opportunities for SMEs.	Augmenting information hub for SMEs.

Figure 25: Key Findings from Individual Policy Maker and Practitioner Interviews

The structured interviews conducted with representatives from major institutions responsible for the development of Kuwait's entrepreneurship ecosystem reveal a consensus on the current challenges:

Challenges	Description
1. Absence of Strategic Focus	The lack of a National Strategy for Entrepreneurship leads to fragmented initiatives, misalignment of resources, and unclear policy priorities.
2. Lack of a Whole-of-Government Approach	The absence of a coordinated approach across government entities results in fragmented efforts and inefficiencies.
3. Access to Finance	Limited access to credit for SMEs, with only 11% having sufficient access. Financial institutions perceive SMEs as high-risk clients, resulting in steeper risk premiums or stricter collateral requirements.
4. Performance of NFSD	An assessment of NFSD's effectiveness in enhancing SME access to finance, including fund size, partnerships with commercial banks, and eligibility criteria scrutiny.
5. Operations of NFSD	Examination of NFSD's operational mechanisms, including financing terms, interest rates, collaboration with partner banks, eligibility criteria, and effectiveness of training initiatives for SMEs.
6. Lack of Focus on High-Growth Start-ups	Insufficient prioritization of high-growth potential start-ups, leading to missed opportunities for economic impact and job creation.
7. Lack of Human Capability Development Strategy	Need for a comprehensive strategy to develop high-tech entrepreneurs, including entrepreneurial education for STEM graduates and access to specialized training in emerging technologies.
8. Diversity in Financing	Limited diversity in financing alternatives outside traditional banking systems, requiring policy interventions to introduce and promote options such as venture capital, crowdfunding, and fintech solutions.
9. Lack of Mechanisms to Adapt to the 4IR	The entrepreneurial ecosystem lacks systematic mechanisms to embrace opportunities presented by the 4IR, including limited technological integration and skills mismatch in the labor market.
10. Lack of Global Integration	Limited integration with global markets and networks restricts exposure and expansion opportunities for local SMEs, including limited international market access and insufficient global networking opportunities.
11. Lack of Global Talent Attractiveness	Challenges in attracting and retaining global entrepreneurial talent, attributed to uncompetitive incentives and regulatory barriers, impacting innovation and technological advancement efforts.

Figure 26: Aggregate Findings from Policy Maker and Practitioner Interviews

5. REVIEW

5.1 Discussion and Recommendations

Addressing the challenges Kuwait faces in economic diversification requires a comprehensive, strategic approach involving; policy reforms, targeted programs, and international collaboration to enhance the competitiveness of Kuwait's entrepreneurial ecosystem on both a regional and global scale. The following discussion seeks to draw on the literature review, the quantitative data, and the qualitative data to provide a summary of key recommendations.

1. Creation of a Dedicated R&D Fund for High-Growth SMEs

Developing a knowledge-based economy requires stimulating the growth of an innovative entrepreneurship ecosystem. A specialized research and development (R&D) fund, operated jointly by NFSD and KISR, would focus on:

- Implementing mechanisms to identify SMEs with the potential for rapid expansion and significant impact on the economy.
- Allocating resources specifically for SMEs engaged in high-risk, high-reward technology innovation projects.
- Focusing on the development and commercialization of cutting-edge technologies.
- Facilitating partnerships between SMEs, research institutions, universities, and international innovation networks.
- Establishing a framework for continuous monitoring and evaluation of funded projects to measure their impact on innovation, economic growth, and job creation.
- Selecting specific sectors to be targeted, drawing on areas of national specialization (i.e., Energy, Logistics etc.).

2. Restructuring the National Fund for SME Development (NFSD):

To enhance the efficiency and effectiveness of financial support for SMEs in Kuwait, it is recommended that the NFSD undergoes a strategic restructuring to focus exclusively on its role as a financier. Such restructuring must be undertaken alongside a comprehensive capacity building program. This repositioning involves:

- Streamlining NFSD operations to concentrate on providing financial services, including loans, grants, and equity investments tailored specifically to the needs of SMEs.
- Developing innovative financial instruments that cater to the unique challenges faced by startups and growth-oriented SMEs.
- Establishing partnerships with commercial banks, venture capital firms, and international financial institutions to co-finance projects.
- Offering workshops and advisory services to SME owners on financial management, access to capital, and financial planning.
- Encouraging competition in financial services for SMEs through fintech innovations.
- Utilization of AI, data analytics, and cloud computing to enhance the credit information system.

3. Establishing a Public Authority for Innovative Enterprise

To drive the ecosystem development mandate previously part of the NFSD's role, the establishment of a Public Authority for Innovative Enterprise is recommended. This authority would be responsible for:

- Leading the strategic development of Kuwait's entrepreneurship ecosystem. This includes mapping the current ecosystem, identifying gaps and opportunities, and setting a national entrepreneurship strategy that aligns with Kuwait's Vision 2035.
- Developing and operating best-in-class start-up incubators.
- Adopting a triple-helix model of collaboration involving government, educational institutions, and the private sector.
- Coordinating government bodies and private sector entities to implement national innovation initiatives.
- Raising public awareness about the importance of innovative enterprises and encouraging their development.
- Developing comprehensive educational programs that integrate entrepreneurship into the curriculum at all levels of education.
- Creating opportunities for Kuwaiti entrepreneurs to gain exposure to global best practices and networks through exchange programs, international conferences, and partnerships with entrepreneurship hubs worldwide.

4. Expanded Transparency and Government Procurement from Startups

Under Law No. 12 of 2020, there is a “right to access information”. This law aims to enhance transparency and efficacy in decision making. Administrative decisions which are made in the disbursement of funds designed for the development of an entrepreneurial ecosystem (specifically in the form of direct support for companies), must be scrutinized to ensure integrity and to enhance the perceived legitimacy of these processes.

Steps have been taken to incentivize government procurement from startups, specifically with reference to the Public Tenders Law No 49 of 2016 (the “Public Tenders Law”), and the Public Private Partnership Law No 116 of 2014. These laws provide guidelines on how public procurement should be administered, and place specific emphasis on the promotion of SMEs. The challenge is not only to increase the share of SMEs who are awarded government contracts, but to implement a system of monitoring and evaluation which favours new, innovative enterprises which can have a wider positive impact on the economy.

5.2 Future Research Directions

There is a need to develop the literature in this area, and to both widen the range of data collection mechanisms and for future research papers which track changes in innovation practices, policy impact, and entrepreneurial success over time. Research undertaken in Kuwait must be connected to comparative international studies, specifically in the GCC region.

Following the mapping of the Kuwaiti entrepreneurship ecosystem undertaken in this research paper, significant work is required to develop the sector-specific understanding of various domains. By so doing, policy interventions can be designed which draw on tailored insights relevant to certain industries. Furthermore, there is a significant need to account for the implications of 4IR on efforts to develop an innovative entrepreneurial ecosystem in Kuwait.

5.3 Conclusion

As Olver-Ellis argues: “[t]o implement the reforms promulgated by Vision 2035 would require deep-rooted structural adjustments across the political economy.” (Olver-Ellis, 2020). Kuwait faces a range of challenges in developing an entrepreneurial ecosystem, and this paper is in response to a specific challenge that academics have noted, the need to “... foster communication between researchers and decision-makers.” (Academic from Kuwait University, Interview, November 2nd 2023).

Addressing the challenges raised in this study requires a renewed strategic approach. The recommendations proposed aim to catalyse the necessary structural adjustments and interventions to enhance the competitiveness of Kuwait's entrepreneurial ecosystem on a regional and global scale. Responding to the challenge of economic diversification will require dedicated efforts from various stakeholders, including government bodies, financial institutions, educational entities, and the private sector.

By adopting a cohesive and collaborative approach, Kuwait can overcome the existing barriers to entrepreneurship and create the foundation for sustainable economic development and diversification, in alignment with the ambitious goals of Vision 2035. This transformation will not only enhance Kuwait's position as a leader in innovation and entrepreneurship in the region, but will also contribute significantly to the nation's economic resilience and global competitiveness.

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