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Innovation Ecosystem for Resource-Rich Countries: Validation of Entrepreneurship Framework for Qatar as a Case

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Abstract: This study investigated how entrepreneurship can reshape resource-based countries such as Qatar into more diverse, sustainable, and knowledge-driven economies. By integrating both exploratory and quantitative research methods, it closely examines how various elements, including government policies, societal values, financial aids, and technological advancements, interact to influence entrepreneurial success. A significant part of the research involves a survey design based on initial qualitative research from a previous study to test the effectiveness of these strategic suggestions. This paper presents targeted recommendations for stakeholders to enhance entrepreneurship education, streamline business regulations, and introduce a national entrepreneurship zone (ENT-Q) facilitated by a digital platform (Ryadah). These steps aim to improve the entrepreneurial environment significantly, making it easier to access crucial business information, support small businesses through dedicated funds, and shift towards a diversified and knowledge-based economy. The anticipated result is better policymaking in entrepreneurship, increased entrepreneurial activity and success, and a move away from reliance on traditional oil and gas sectors. By offering a detailed plan for promoting entrepreneurship in resource-rich settings, this paper contributes valuable insights into economic diversification and sustainable development, providing actionable strategies that can be adapted to similar economies worldwide in a manner that is more accessible and understandable.

Keywords: entrepreneurship; innovation system; small business; economic diversification; sustainable economy



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1. Introduction and Contextual Background

Entrepreneurship plays a crucial role in any society's economic and social development. It is a major driving force behind innovation and job creation, fostering economic growth and improving living standards. Entrepreneurs introduce new products and services, increasing market competition and efficiency; more importantly, they add value to society in terms of economic gains, social progress, and individual achievements. According to a report by the Global Entrepreneurship Monitor, entrepreneurial activities are closely linked to higher levels of economic development and prosperity [1]. Moreover, entrepreneurs often drive technological advancements and bring about social change, as highlighted in a study by the Kauffman Foundation [2]. This ability to innovate and disrupt traditional industries is vital for adapting to changing global markets and consumer needs. This is even more significant for resource-based industries, where changing markets can have a significant impact on the value of natural resources. Furthermore, the income generated from the resources can be used to accelerate the transformation of the economy from one that is resource-based to a more diversified, knowledge-based economy. Entrepreneurship empowers individuals to realize their potential and contribute meaningfully to their communities. As per a World Bank analysis, small- and medium-sized enterprises, run mainly by entrepreneurs, account for over 50% of employment worldwide, underscoring

their significance in job creation [3]. Thus, entrepreneurship is a pathway to personal success and a key contributor to national and global economic health.

This paper advances the qualitative findings of a previously published work (“Investigations on Entrepreneurship Needs Challenges and Models for Countries in Transition to Sustainable Development from Resource-Based Economy—Qatar as a Case” [4]) to quantitatively delve deeper into the complex and interdependent relationships between several policy, social, and economic factors of entrepreneurship within resource-based countries. The previously published work [4] explores entrepreneurship’s unique challenges and opportunities in countries that are transitioning from resource-based to knowledge-based economies, such as Norway. Focusing on Qatar, the previous work analyzed current policies, mechanisms, and institutes aiding economic diversification. Barriers such as the lack of a supportive legal and regulatory environment, difficulty accessing risk-based financing, and insufficient locally relevant entrepreneurial mentorship were analyzed, and a locally tailored framework to enhance the quantity and quality of impactful entrepreneurs and small businesses was proposed, aiming to accelerate economic diversification and sustainable development. Such a framework could be adapted to similar economies, emphasizing the critical role of entrepreneurship in transitioning to a sustainable, diversified economy.

The key findings from the initial study include major barriers to developing entrepreneurship in Qatar, such as the lack of a conducive and transparent legal, regulatory, and governance environment; the lack of access to different financing options for entrepreneurs; and the lack of contextually relevant entrepreneurial mentorship and guidance. It also identified key recommendations for different stakeholders, such as the recommendations to simplify the business process and develop additional free zones for the government, provide clarity and transparency in selection criteria, create more networking events, and provide more elaborative mentoring and training for the supporting agencies.

In this study, an explanatory and quantitative analysis is used to validate and refine the findings from the earlier paper on the dynamics of entrepreneurship in resource-based economies, using Qatar as a case study. The method involves conducting a survey to gather diverse perspectives from various stakeholders and participants, including business owners, aspiring entrepreneurs, and key decision-makers and policymakers. This survey is designed to reveal in-depth insights that will help refine and enhance the entrepreneurship framework into a workable and implementable roadmap. This revised framework aims to be highly relevant and adaptable to Qatar’s specific economic and cultural context as well as similar economies. By tailoring our approach to these economies’ distinctive challenges and opportunities, we hope to provide a comprehensive set of recommendations. These recommendations foster a supportive environment for entrepreneurs, facilitating a smooth transition to a more diversified and sustainable economy. Through this process, we aim to offer a precise and actionable roadmap for nurturing entrepreneurship in Qatar and other countries with similar economic structures, along with an impact assessment of the recommendations.

Contrary to the qualitative approach used in the previous study, the quantitative approach used in this study holds significant importance in research. Quantitative methods, involving the systematic analysis of numerical data, offer an objective means to measure and analyze trends, patterns, and relationships in research findings. As Creswell JW and Creswell JD emphasized in their book *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches* [5], quantitative research provides empirical evidence that can either support or challenge hypotheses and theories. By using surveys, our preliminary findings from the earlier paper can be validated with a bigger sample size, producing results that are closer to reality. Furthermore, the data from the survey can be used to improve and enhance the findings further. This approach proves particularly valuable in demonstrating the effectiveness of changes recommended based on qualitative insights. By integrating qualitative and quantitative methods, we can attain a more holistic and rigorous understanding of entrepreneurship challenges and needs in resource-based countries, yielding more robust and credible results.

This study is formulated around the following main research questions.

1. How can we create effective plans, programs, and policies to support and grow entrepreneurship in economies based on natural resources? How does this differ from what we learned in earlier studies?
2. What should be included in a clear plan for implementing the entrepreneurship framework in these resource-based economies? How can we make sure that this plan is well-organized for successful implementation?
3. What are the expected short-term and long-term contributions of applying the entrepreneurship framework in resource-based economies like Qatar?

2. Literature Review and Theoretical Framework

The transition from a resource-dependent to a diversified and sustainable economy is crucial for Qatar, reflecting a global trend where entrepreneurship is increasingly recognized as a critical driver of economic change. Developing entrepreneurial ecosystems in this context is complex, involving various elements. Economic, cultural, and policy-related factors converge to shape the entrepreneurial landscape. Recent studies underscore the importance of quantitative analysis in unraveling these dynamics, providing essential insights that aid in formulating effective strategies for economic transformation [6–8]. This approach is particularly relevant to Qatar, where the national vision emphasizes innovation and entrepreneurship as pillars of economic diversification and sustainable development [9,10]. This literature review will discuss Norway as an example of a successful nation transitioning from a resource-based to a knowledge-based economy for comparative purposes before delving into the main themes identified from the preliminary framework developed in the first paper for Qatar.

2.1. Norway—A Nation in Transition from a Resource-Based to a Knowledge-Based Economy

Norway's journey from a resource-based economy to a thriving knowledge-based economy showcases the transformative power of entrepreneurship when coupled with strategic policies and systems. The Scandinavian model, particularly highlighted through Norway's experience, involves key elements such as a centralized wage compression system, fostering equality and incentivizing sectors towards higher productivity without force but through voluntary compliance by a highly educated and homogenous population. This approach, which is unique to Norway's cultural context, laid the groundwork for economic diversification and innovation [11,12].

Norway's preemptive strategies to avoid the Dutch disease post-oil discovery in 1969, such as establishing control over oil decisions, prioritizing national energy needs, and focusing on environmental protection, were crucial. These measures, alongside the creation of a sovereign wealth fund and investment in education, not only managed oil wealth effectively but also facilitated the development of new economic sectors. The nation successfully attracted talent, developed local entrepreneurs, and established a robust educational system, thereby creating a conducive environment for entrepreneurship [13,14]. Despite the abundance of resources and a high quality of life, challenges such as harsh climate and resistance to immigration pose potential obstacles to maintaining this entrepreneurial paradise. Norway's model underscores the importance of resource management, policymaking, and human capital development in fostering a dynamic and diversified economy [15].

2.2. Government Policies

Although not very successful, Qatar attempted to follow a similar method as Norway to foster entrepreneurship. Qatar's approach encompasses specific policy initiatives and broader economic strategies to create a conducive environment for business growth and innovation. Key focus areas include tax incentives, business registration processes, and legal frameworks to protect intellectual property rights. These measures aimed to lower barriers to entry, encourage investment, and foster a culture of innovation [16,17]. However, Qatar's approach lacked the dedicated, proactive strategies to tackle Dutch disease [18].

The impact of government policies on entrepreneurial dynamics in Qatar is a critical area for quantitative analysis. The formulation and implementation of these policies necessitate a deep understanding of the complex entrepreneurial ecosystem. Recent studies highlight the need for policies that encourage business formation and support the growth and sustainability of start-ups [19]. For instance, Mazzucato and Penna emphasize the role of the government as both a facilitator and an enabler of innovation-driven entrepreneurship [20]. Furthermore, the effectiveness of these policies in facilitating economic diversification is crucial for Qatar's economic sustainability. As Alvarez, Barney, and Newman argue, diversification policies must be tailored to leverage the unique assets and capabilities of the economy [21]. The diversification of the economy involves shifting from oil-dependent strategies to more diverse, knowledge-based economic models in Qatar.

Quantitative analysis is crucial in evaluating the effectiveness of these policies. For instance, examining the correlation between policy complexity and new business formation can provide insights into the effect of the policies. Quantitative analysis includes analyzing trends in the perceived challenges of different systems and aspects of the ecosystem. Moreover, the role of government-sponsored support agencies and funding programs is significant in shaping the innovation landscape in Qatar. They represent some of the most significant actions taken by the government to support and develop entrepreneurship in Qatar and achieve a transition to a knowledge-based economy, as stated in the national vision. These funding mechanisms support early-stage start-ups and encourage research and development activities. Quantitative assessments can determine the most effective forms of financial support. Multiple recent studies highlight the increasing importance of such support in emerging economies, emphasizing the need for tailored financial solutions that address specific market gaps and sectoral needs [22,23].

2.3. Cultural and Social Factors

Learning from Norway's cultural factors that helped increase productivity and develop the economy, such as the wage compression system enabled by the highly homogeneous culture, Qatar's cultural and social factors were also investigated. The entrepreneurial mindset in Qatar is complicatedly linked to historical and current socio-cultural dynamics. Traditional family businesses have long been the backbone of the Qatari economy, and their adaptation to the entrepreneurial landscape offers a rich area for study. As these family businesses confront modern entrepreneurial challenges, including technological innovation and increased competition, their evolution offers valuable insights into the broader shift in the country's economic philosophy. This evolution can also contribute to the current societal attitude toward entrepreneurship, similar to how it did in the past [24,25].

The social perception of entrepreneurship in Qatar, particularly among the youth, is another area ripe for exploration. As entrepreneurship emerges as a viable career path, understanding the societal attitudes and views towards it, including the perceived risks and rewards and stigmatism for failed entrepreneurs, becomes crucial. Surveys can shed light on these perceptions, highlighting how the younger generation views entrepreneurship in contrast to more traditional career paths [26].

Furthermore, understanding the drivers of entrepreneurial intentions in Qatar requires an analysis of the individual characteristics and the broader socio-economic context. Research shows that personal traits, such as risk tolerance, resilience, and a proactive mindset, significantly influence the inclination toward entrepreneurship. In Qatar, these traits are increasingly recognized as critical for the success of new entrepreneurs, especially in a rapidly changing economic landscape [27,28]. The cultural context in Qatar, with its unique blend of traditional values and modern business practices, also plays a significant role in shaping entrepreneurial intentions. Cultural norms regarding risk, success, and innovation can either facilitate or impede the development of entrepreneurial mindsets. Recent studies emphasized the importance of cultural adaptability and the ability to navigate both local and global business cultures as critical competencies for entrepreneurs [29,30].

In this research, qualitative analysis was used to gauge the social factors and cultural context affecting entrepreneurship. This was primarily accomplished through survey questions aimed at understanding the role of family support in motivating entrepreneurs. We also examined gender-specific answers to find correlations that help infer certain social contexts. For instance, we examined gender-specific demands and drivers.

2.4. Access to Financial Support and Incubation

In Qatar's evolving entrepreneurial ecosystem, the nature and effectiveness of financial support are pivotal areas of study. Beyond the mere availability of capital, the landscape of financial assistance encompasses the growing role of Islamic finance, which aligns with local cultural and religious norms, and its influence on entrepreneurial ventures. Islamic finance models, such as Mudarabah and Murabaha, offer alternative funding mechanisms that could encourage broader participation in entrepreneurship, particularly among those seeking Sharia-compliant options. The main challenge is the availability of the programs/banks that offer these financial options [31].

Furthermore, the effectiveness of government funding programs is a crucial area of interest, as financial support helps cultivate more start-ups and scale-ups, ultimately helping to achieve economic diversification, as seen in Norway's experience. Programs such as the Qatar Development Bank's initiatives to support SMEs and start-ups provide crucial financial support. Those programs are vital components of the entrepreneurial ecosystem in Qatar, acting as catalysts for new business development and innovation. These entities provide essential resources such as mentorship, funding, and networking opportunities to emerging businesses, significantly influencing their survival and growth trajectories. Quantitative analysis of these programs can involve assessing the success of those financial support programs in developing entrepreneurs [9,32,33].

As Qatar continues to invest in building a robust entrepreneurial ecosystem, ongoing research into the performance and impact of incubators and accelerators is essential. The ongoing research includes incubators' direct economic impact and role in fostering a culture of innovation, attracting international talent, and promoting sustainable business practices. Such insights can guide policymakers and stakeholders in refining support mechanisms for entrepreneurs, ensuring that incubators and accelerators effectively contribute to the nation's broader economic and developmental goals [17,33,34].

2.5. Innovation, Technology, and Digitization

Innovation catalyzes entrepreneurship in Qatar, especially in high-potential sectors such as information technology, healthcare, and renewable energy. Research institutions, universities, and synergistic partnerships between the private sector and academia primarily drive this innovation. In Qatar, where the national strategy emphasizes knowledge-based economic development, technological entrepreneurship is a cornerstone for future growth [9,10]. Integrating technology into Qatar's entrepreneurial landscape is not just about economic growth but also aligns with broader objectives of sustainability and diversification. This strategic alignment is crucial for the Qatari economy's long-term resilience and competitiveness in a rapidly changing global landscape [35]. Analyzing start-up ecosystems, particularly in tech-heavy sectors, reveals the importance of supporting structures such as incubators, accelerators, and technology parks. In Qatar, entities such as the Qatar Science and Technology Park (QSTP) play a significant role in fostering a conducive environment for technology start-ups. Research shows that there is a need for efficient financial sectors to fully harness the economic benefits of innovation, with policy implications stressing the need for financial reform to support R&D, thereby driving economic development through innovation [36]. Quantitative studies can assess the effectiveness of these support structures in terms of start-up needs and requirements [17].

Qatar's digital entrepreneurship realm is experiencing a transformative phase, reflecting global trends in technology and innovation. The spread of digital start-ups, fueled by advancements in areas such as e-commerce and online business, presents unique op-

portunities and challenges. Moreover, the readiness of the Qatari workforce to engage in the digital economy is crucial. The digital economy exerts a positive influence on the eco-efficiency of industries at a national level, though with low returns. Furthermore, the impact of the digital economy on industrial eco-efficiency exhibits substantial variability across different regions. In eastern countries, the digital economy significantly enhances industrial eco-efficiency, whereas in Western countries, its impact is negative [37].

Studies can quantitatively assess skill gaps, particularly for recommendations pivotal to supporting and fostering entrepreneurship, such as shifting to an entirely online business registration process; additionally, the regulatory framework governing digital businesses in Qatar warrants close examination. Data privacy, cybersecurity, and digital transaction regulations are critical for the sustainable growth of digital entrepreneurship. The impact of these regulations on start-up innovation, consumer trust, and international investment can be assessed through comprehensive quantitative studies [13,38]. A quantitative assessment of this sector is essential. Especially considering the proposed innovative platform Ryadah [4], the proposed solution can be used to explore possible challenges.

2.6. Educational Initiatives and Human Capital Development

The significance of entrepreneurship education in shaping the future of economies, especially in the context of Qatar, extends to its impact on fostering a culture of innovation and contributing to long-term economic diversification. This is evident from Norway's experience, where education was a significant enabling factor in developing the entrepreneurial sector, especially in tech sectors that require expertise [39]. Recent quantitative studies emphasize the importance of entrepreneurship education in shaping career paths, highlighting its role in introducing a mindset conducive to innovation and risk-taking [40]. The impact of such education on career trajectories can be profound, often influencing the tendency of individuals to engage in entrepreneurial activities or to innovate within existing organizations [41].

Moreover, there is growing interest in assessing the effectiveness of different educational settings in developing entrepreneurial skills. Universities, vocational schools, and online platforms each offer unique environments for entrepreneurship education, and their comparative efficacy can support policy and curriculum design [41]. Experiential learning and mentorship programs, often incorporated into these educational frameworks, significantly enhanced the practical skills and confidence required for entrepreneurship [42]. Industry-academia collaborations also play a critical role in developing relevant entrepreneurial competencies, ensuring that the skills taught are aligned with market needs [43].

In Qatar, aligning educational initiatives with the National Vision 2030 will help demonstrate a commitment to embedding entrepreneurship within the broader national development framework. This strategic approach suggests a holistic view of entrepreneurship education, one that exceeds traditional business skills and fosters a comprehensive set of competencies geared towards innovation and economic diversification [10].

Furthermore, universities in Qatar are instrumental in facilitating technology transfer, a process critical for converting academic research into commercial opportunities. Additionally, the support these institutions provide to student and faculty start-ups through incubators and accelerators can be measured by these ventures' survival and growth rates [44]. Collaboration with industry partners is another critical area where the effectiveness of joint projects and internships in enhancing students' entrepreneurial skills can be evaluated [45]. These collaborative efforts provide real-world experience and bridge the gap between academic theory and business practice, a crucial aspect of modern entrepreneurial education [10,46].

2.7. Role of Networks and Collaboration

The role of networks and collaboration in Qatar's entrepreneurial ecosystem is multifaceted and vital for the growth and sustainability of start-ups. Entrepreneurial networks,

encompassing formal business networks, social networks, industry associations, and informal peer groups, play a critical role in providing entrepreneurs with resources, support, and opportunities. Additionally, the impact of these networks on key business outcomes such as innovation, market expansion, and financial performance is crucial for the success of entrepreneurs [47,48]. Studies focusing on Qatar can explore how different networks contribute to entrepreneurial success, examining factors such as the role of mentoring, access to capital, and market entry strategies. The variation in network benefits across sectors and types of entrepreneurs, including gender and cultural differences, can provide deeper insights into how to tailor networking initiatives for maximum impact [16,49]. For instance, research can assess the need and effectiveness of industry-specific networks in technology or manufacturing sectors versus more general business networks. Furthermore, the role of digital networking platforms in enhancing entrepreneurial collaboration, particularly in Qatar's rapidly growing digital economy, is an emerging area of interest. These platforms can transcend traditional geographic and social limitations, offering new avenues for resource sharing, collaboration, and market access [8,50].

2.8. Global Entrepreneurship

The role of Qatar in the global entrepreneurial landscape is increasingly significant, particularly as the nation seeks to diversify its economy and establish a presence in international markets [51,52]. Recent studies focused on the globalization of start-ups from emerging economies, highlighting the importance of understanding market dynamics, cultural context, and regulatory environments in different countries [35,53]. The role of government and non-governmental organizations in facilitating this internationalization process is also vital. Policies and programs aimed at supporting global market entry, providing international networking opportunities, and fostering cross-border partnerships can be instrumental in the success of these entrepreneurial ventures [54]. Furthermore, the impact of cross-border entrepreneurial activities extends beyond immediate economic gains. They contribute to developing global market competencies, cultural intelligence among entrepreneurs, and the overall international reputation of the Qatari business sector. Quantitative research in this area is essential as it will help us evaluate our proposal for ENT-Q [4] and its role in enhancing the nation's global competitiveness and innovation capacity [55,56].

It is hypothesized that by enhancing the framework focusing on tackling barriers and challenges to entrepreneurs and improving the business environment in resource-based economies such as Qatar, we could significantly increase the number and quality of its entrepreneurs. This increase would ultimately lead to a more significant contribution from SMEs to the economy and a more diversified, sustainable economy that is less dependent on natural resources.

This study aims to provide a refined and contextually relevant entrepreneurship framework for resource-based economies aiming to transition to a more diversified economy supported by a strong private sector. The paper is structured as follows: in Section 3, the methodology of this study is presented, and how it was built upon the previous research is discussed. In Section 4, the results of the research are presented along with recommended actions and innovative ideas to support the ecosystem; this is followed by a roadmap and impact assessment of different recommendations. The paper is concluded in Section 5.

3. Methodology

This paper serves as an extension of the preceding study [4]. While the previous study adopted an exploratory and qualitative methodology, this research employs an approach that combines both explanatory and quantitative analyses. We aim to build upon the previous findings and refine and empirically validate the proposed framework through a more comprehensive and quantitatively driven investigation. An integral component of this study is the development of a detailed roadmap for implementing the refined framework. Figure 1 illustrates the overarching research methodology. The initial phase entails a

thorough literature review to deepen our understanding of various parts of the preliminary framework. Following this, the second phase concentrates on empirical validation and refinement of Qatar's entrepreneurship framework, utilizing surveys conducted with diverse local stakeholders. The final stage of this research is dedicated to formulating an enhanced policy framework for entrepreneurship in Qatar. This framework is shaped by insights acquired from the combined explanatory, exploratory qualitative, and quantitative analyses conducted across both studies.

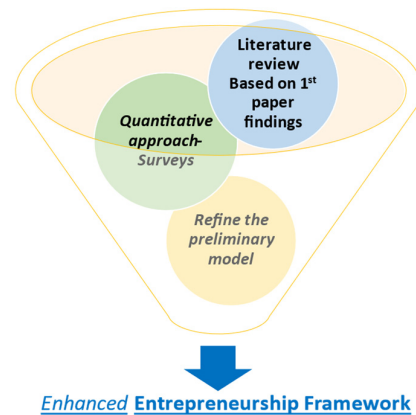


Figure 1. Overall methodology and tools used in this research.

3.1. Explanatory Research Approach

Explanatory research is pivotal in comprehensively understanding and evaluating the efficacy of Qatar's existing entrepreneurial frameworks, policies, practices, and outcomes. This methodology entails systematically collecting data pertinent to the initially proposed framework. These data are instrumental in fostering a more nuanced understanding of the critical themes identified in the previous paper. This explanatory approach particularly effectively sheds light on current and prospective systems and policies. It facilitates a detailed examination of the various obstacles and limitations impeding entrepreneurship in Qatar, representing a resource-based economy. The scope of the explanatory analysis encompasses a diverse range of areas identified through the earlier study, including the following:

- **Government Policies:** Policies for business growth, innovation, effectiveness, and impact on economic diversification.
- **Cultural and Social Factors:** Exploring the influence of historical and modern socio-cultural dynamics on entrepreneurship, including youth perceptions and individual traits.
- **Access to Financial Support and Incubation:** Assessing the role of financial support, including Islamic finance and government programs, as well as the impact of incubators and accelerators.
- **Innovation, Technology, and Digitization:** Innovation in critical sectors and the strategic integration of technology in entrepreneurship, focusing on regulatory frameworks and workforce readiness.
- **Educational Initiatives and Human Capital Development:** The significance of entrepreneurship education in fostering innovation and its alignment with national development goals, including the role of universities.
- **Role of Networks and Collaboration:** Examining the importance of various networks and collaborations in providing resources and opportunities for entrepreneurs.
- **Global Entrepreneurship:** Investigating Qatar's role in the global entrepreneurial landscape, emphasizing international market dynamics and government support for global expansion.

This comprehensive exploration aids in identifying critical areas for improvement and opportunities for further development in Qatar's entrepreneurial ecosystem.

3.2. Quantitative Approach

The quantitative analysis involved the examination of data from 400 comprehensive surveys completed by a diverse group of stakeholders, including successful and unsuccessful entrepreneurs, aspiring entrepreneurs, industry and business representatives, policymakers, government agencies, entities involved in entrepreneurship education and training, support and promotion programs, and academia (both faculty and students). A sample size of 400 was required to obtain a sufficient and representative sample of our target population size with a confidence level of 95%. This approach aimed to deepen our understanding of the initial framework. These surveys offered a direct quantitative evaluation of the current effectiveness of policies, mechanisms, and initiatives in fostering, supporting, and enhancing entrepreneurship in Qatar. They also helped identify existing gaps and inefficiencies. The questions were carefully formulated based on the themes identified in the first paper. The questions were then reviewed through multiple review rounds with focus groups/participants to ensure that the most critical and relevant information was captured, and the results of those questions were used to enhance the preliminary framework developed in the previous paper. The questions were developed in Likert format for easier understanding and analysis.

3.3. Roadmap, Implementation Plan, and Impact Assessment

Once the framework was enhanced using the results of the quantitative analysis, a road map was developed to show the timeline and implementation plan of every recommendation in the framework. The road map and implementation plan were developed based on knowledge gained from the literature review and the knowledge gained from the research (both quantitative and qualitative). These insights were gained through the discussions and interviews that were conducted with stakeholders (e.g., policymakers and supporting agencies) as well as through literature review findings from other experiences in other countries. After that, the authors conducted an impact assessment of the recommendations based on the results of the surveys. This impact analysis was coupled with the road map to create a priority list of the highest-impact recommendations. The impact level was determined using the survey results. For instance, recommendations that tackle an issue that was highlighted as a significant challenge result in that recommendation having a high impact.

3.4. Description of Survey Preparation, Planning, and Conduction

The survey analysis process began after collecting all data, with initial interviews used to develop the survey questions. The interview questions were carefully formulated based on the themes identified in the literature review. Those questions were reviewed through multiple review rounds with focus groups/participants to ensure that the most critical and relevant information was captured. Utilizing SurveyMonkey, the surveys were spread through various channels, including university announcements, social media, and WhatsApp groups, to ensure that the target stakeholders were reached. For instance, a survey link was shared with supporting agency representatives to ensure that input from those stakeholders was captured. Multiple reminders were sent out over approximately two months to encourage participation. Of the 549 responses received, 402 were fully completed. The lower completion rate may be attributed to the survey's length and the detailed nature of the questions. A comprehensive cover page was included in the survey, providing essential information about the study's background, context, and objectives, along with details about the authors and assurances regarding data privacy. Participation in the survey was subject to respondents' consent, ensuring ethical compliance. All questions were presented in English, with key points and terms clearly explained for clarity. The demographics of the survey participants are detailed in Tables 1 and 2, offering insight into the diverse range of respondents who contributed to this research. All survey questions can be found in Supplementary Materials.

Table 1. Demography.

Gender	Female		Male			
		151			251	
Nationality	Non-Qatari			Qatari		
		111			291	
Marital status	Married			Single		
		307			95	
Education level	High school	Bachelor's degree		Master's degree	Doctorate or above	
	38	247		82	35	
Age	18–24	25–34		35–44	45–54	55 and above
	47	158		165	14	18
Education background	Art	Science	Business	Engineering	Finance	Others
	11	26	62	160	22	121
Employment status	Self-employed	Both (Self-employed and employed)		Employed	Student	Unemployed
	9	39		308	45	1
Business experience	None	1–3 years	4–6 years	7–9 years	10 years or more	
	151	139	41	9	62	

Table 2. KMO and Bartlett's Test.

KMO and Bartlett's Test		
Kaiser–Meyer–Olkin Measure of Sampling Adequacy.		0.747
	Approx. Chi-Square	17,043
Bartlett's Test of Sphericity	df	1225
	Sig.	<0.001

3.5. Description of Survey Analysis

The survey results were analyzed using Pivot Tables in Microsoft Excel (v2403) for Microsoft 365, a choice made over SurveyMonkey's built-in analysis tools due to Excel's superior flexibility and customization options for data presentation. Two distinct pivot tables were created for the analysis:

Direct Answer Pivot: The first pivot table utilized the respondents' answers in their original form. For instance, responses to the question "Please rate the overall experience of starting a business in Qatar" were categorized as very difficult, difficult, moderate, easy, and very easy. This straightforward method was employed for simpler charts that did not require integrating multiple data points or complex answer formats.

Numerical Value Pivot: The second pivot table involved converting all answers into numerical values. This approach was integrated into the survey design phase, with questions framed in a 5-point Likert scale format to maintain consistency. In this system, the least intense or easiest option was assigned a value of 1, while the most intense or challenging option was rated out of 5. For example, for the question "Please rate the overall experience of starting a business in Qatar," the responses were quantified on a scale from 1 (very easy) to 5 (very difficult). Additionally, where applicable, a value of 0 was assigned to responses indicating "Not Applicable." This numerical method was predominantly used for analyzing more complex data sets, especially where the visualization required multiple answers to be displayed on the same chart. The averages/sums/counts of these numerical responses were then utilized to develop correlations and comparisons between different sets of answers.

3.6. Sampling Adequacy and Appropriateness

The suitability of survey results can be evaluated using the Kaiser–Meyer–Olkin (KMO) measure for sample adequacy and Bartlett's Test of Sphericity. According to the results shown in Table 2, the score of 0.747 indicates a middling level of appropriateness for

the sample, and the significance level for Barlett's test is below 0.05, which is appropriate and desired [57,58].

4. Results, Analysis, and Discussion

Our preceding study revealed that restrictive policies, an unsupportive legal framework, and challenging financial, market, and interpersonal dynamics are key factors hindering the successful promotion of entrepreneurship in Qatar. These findings align closely with the insights from the Global Entrepreneurship Monitor (GEM) 2020/2021 Global Report, which underlines government regulations not supportive of entrepreneurship, the absence of adequate financial support, and a lack of comprehensive, targeted entrepreneurship education as primary barriers to entrepreneurial activity in the country [1,4]. This section offers an in-depth analysis of the results obtained from the quantitative approach, focusing on the prevailing challenges, needs, initiatives, and support systems within Qatar's entrepreneurship landscape. Additionally, it proposes actionable steps for various stakeholders, incorporating a comprehensive roadmap and impact analysis. These recommendations, initially presented in the preceding paper, were further refined and substantiated with insights derived from the survey findings. This enhanced approach aims to provide a more precise and effective strategy for advancing the entrepreneurial environment in Qatar.

4.1. Survey Results and Findings

4.1.1. Business Experience and Challenges

Our survey included several questions about the challenges and overall experience of conducting business in Qatar. A notable consensus emerged among participants regarding the difficulty of starting a business in the country. Nearly 90% of respondents rated their experience as very difficult or difficult, with the remaining 10% finding the difficulty of doing so to be medium, easy, or very easy. Figure 2 illustrates the primary reasons that contribute to these challenges for individuals with business experience.

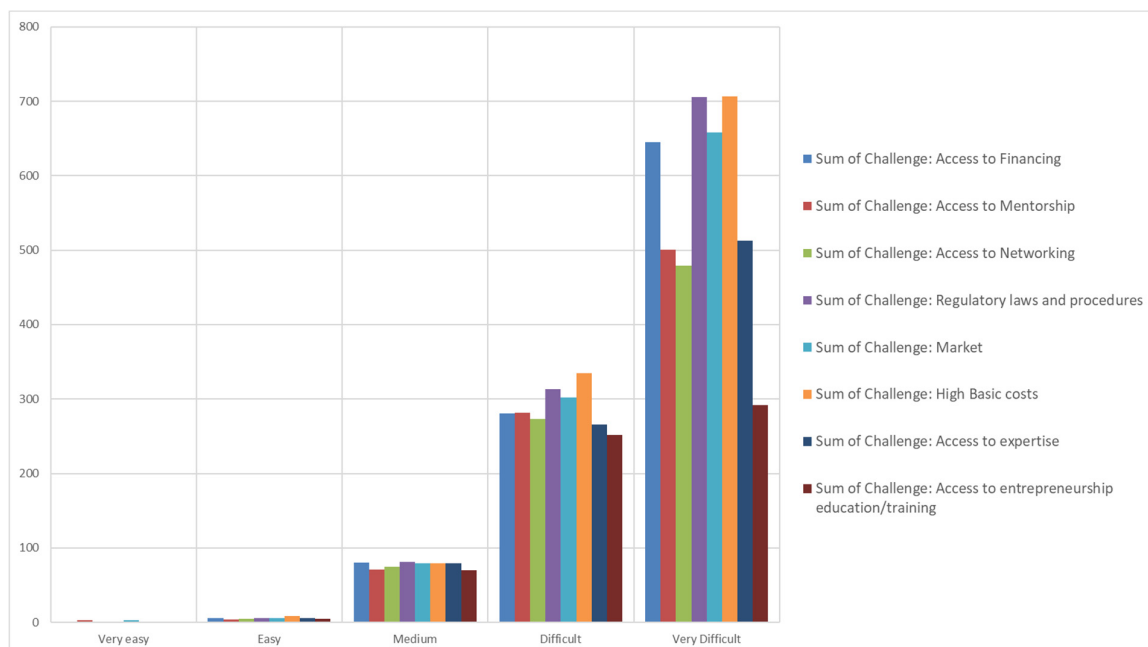


Figure 2. Challenges resulting in difficulty for people with business experience.

As depicted in Figure 2, the data indicate that high basic costs (such as rentals and workforce expenses) and regulatory laws and procedures are the most daunting challenges for entrepreneurs in Qatar. These are followed closely by issues related to access to finance

and market challenges, including factors such as seasonality and market size. This finding aligns partially with research by the Qatar Development Bank (QDB), which identified government regulations and access to funding as significant obstacles to entrepreneurship [59,60]. It is also in line with other studies from India and Malaysia [61,62], which could mean that this is a worldwide challenge that is independent of the social context. Interestingly, education and training were perceived as lesser challenges, likely due to the availability of entrepreneurial training from various supporting agencies and programs, as discussed later in the paper.

Most responses were negative regarding different aspects of Qatar's entrepreneurial ecosystem. For example, only about 7% of respondents viewed the legal system as highly supportive, supporting findings from an earlier qualitative study. Additionally, a mere 14% believed that entrepreneurs and start-ups receive adequate support in tenders despite public sector directives to support local start-ups. Furthermore, only 10% of respondents perceived the social perception of failed entrepreneurs as positive, indicating a need to cultivate a more supportive entrepreneurial culture.

4.1.2. Demographic Insights

The survey revealed gender-based perceptions, with women finding it more challenging to start a business in Qatar than men. This finding echoes the findings of Muneera and Koc, which pointed to additional social and cultural hurdles women face in the region [63,64]. People who never started or failed in business ventures perceived starting a business as more challenging than those who currently own a business. Self-employed individuals reported a relatively lower level of challenge than other groups. Interestingly, single individuals perceived most challenges as less significant compared to their married counterparts, except in the areas of education and networking. This difference is likely due to the greater responsibilities and limited time availability for married individuals compared to singles.

4.1.3. Drivers and Enablers

In the survey, a section evaluated the primary motivations and enablers for entrepreneurs in Qatar. Financial independence emerged as the most compelling driver among those who had not yet started a business, whereas financial gain was identified as the key motivator for those who started their entrepreneurial journey. Notably, pursuing social impact was ranked as the least influential driver overall. Demographic correlations revealed interesting variations in entrepreneurial drivers. Married individuals tended to place a higher value on financial gain and independence, whereas single respondents showed a stronger inclination towards social impact and personal passion. Gender differences were also evident, with male respondents demonstrating a more pronounced focus on financial independence than females. Figure 3 illustrates these entrepreneurial drivers across different age groups, offering further insight into how age influences the motivations behind entrepreneurial pursuits.

Figure 3 illustrates that the youngest (18–24) and oldest (55+) age groups show a relatively stronger motivation for social impact, whereas the 25–34 age group is most prominently driven by financial gain and independence. The oldest demographic (55+) also places great emphasis on financial gain, possibly due to approaching retirement age and the consequent need to secure their future financially. Regarding the enablers of entrepreneurship, access to funding and ease of conducting business emerged as the most significant factors, as depicted in Figure 4. In contrast, mentoring, education, and family support were identified as the least significant enablers.

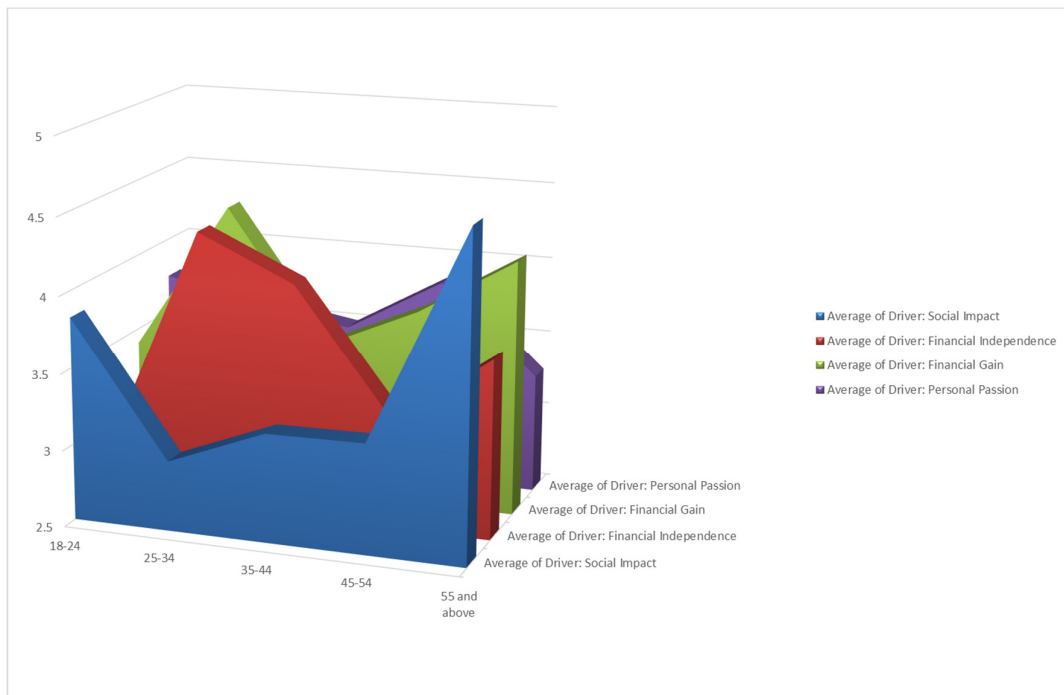


Figure 3. Entrepreneurship driver vs. age group.

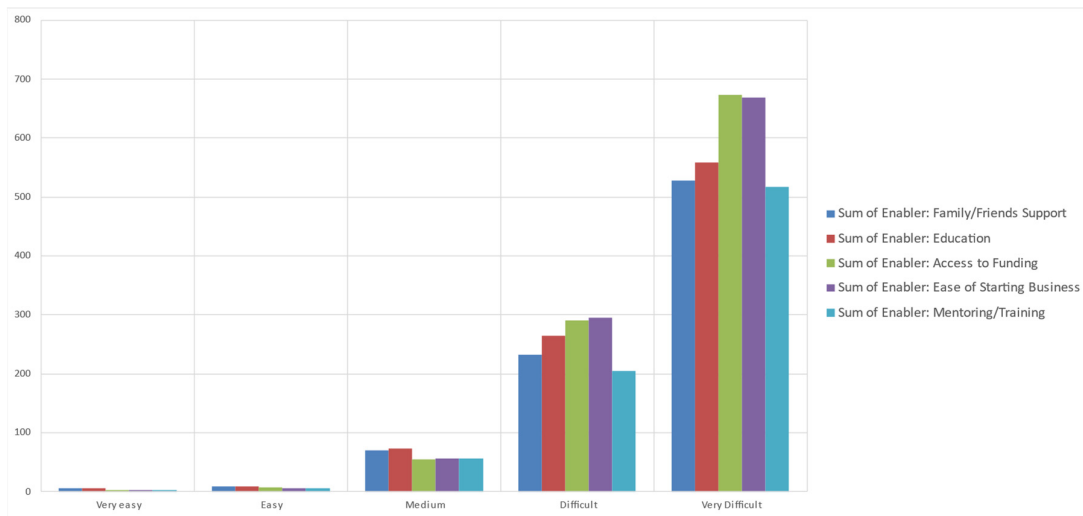


Figure 4. Enablers vs. perception of business difficulty for people with business experience.

Demographically, family and friend support was found to be more crucial for women than men, aligning with the cultural context in Qatar, as discussed by Al-Qahtani and Koc [54,55]. Interestingly, this is also in line with other research findings in Canada and Slovenia [65,66], which suggests that this may be a wide-reaching trend. The findings are represented in Figure 5 [63,64].

Other notable findings include the perception of education as more important among those with higher educational levels, while ease of conducting business was deemed more critical by those with lower educational levels. This trend is expected, as individuals who value education more are likely to pursue it further and, thus, regard it as more important. Additionally, individuals with a financial background tended to value mentoring and training less, possibly indicating a belief in their readiness to start and manage a business with less need for guidance. Finally, ease of conducting business was seen as more significant for

Qataris than non-Qataris, which could be attributed to higher expectations of government support among the national population.

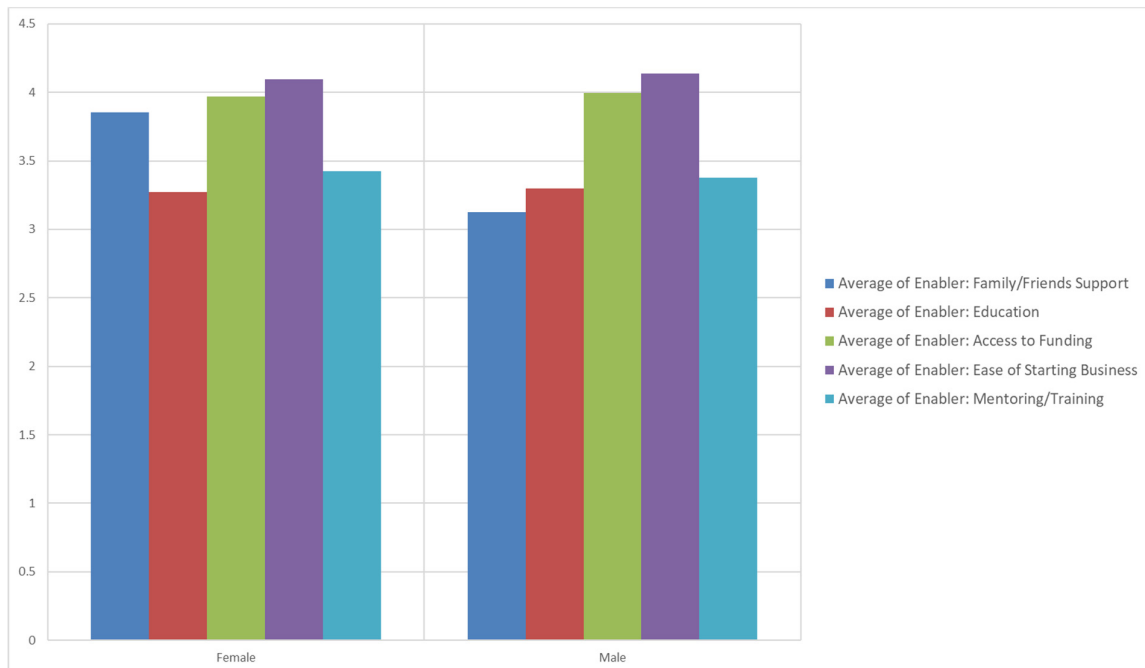


Figure 5. Enablers vs. gender.

4.1.4. Preferred Financing Method

The survey revealed preferences for financing methods among entrepreneurs, as illustrated in Figure 6. Grants emerged as the most favored option, which aligns with expectations, considering that grants typically involve the least risk compared to other financial methods. Following grants, crowdfunding and partnerships were the most popular choices, likely due to their lower-risk association. In contrast, financing through family and friends was the least preferred method. Regarding angel investment, the majority of respondents opted for a neutral stance. Post-survey feedback indicated a lack of familiarity with the concept of angel investment in Qatar, suggesting a potential area for increased awareness and education.

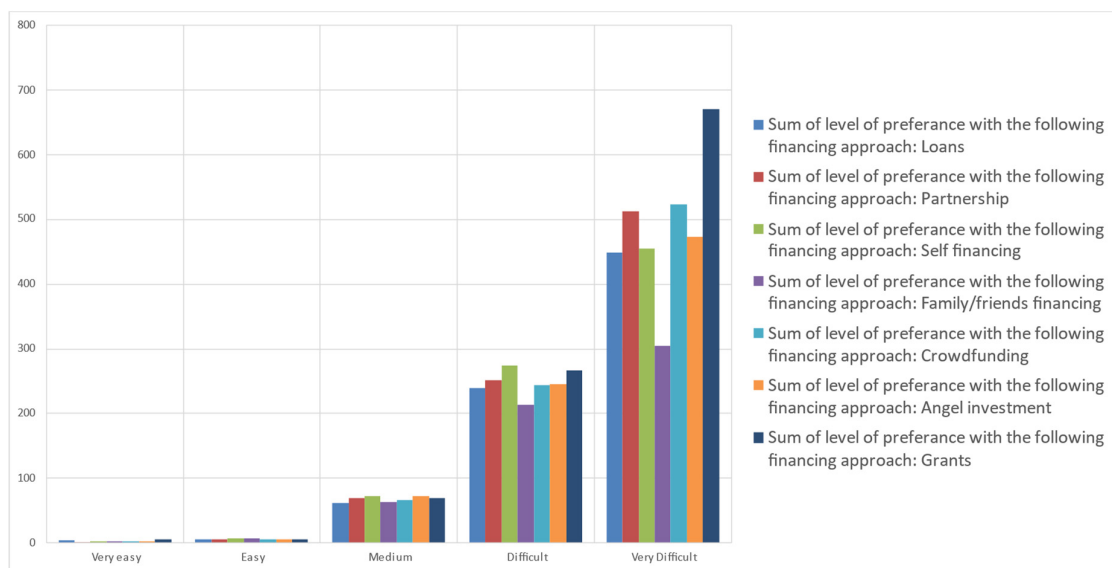


Figure 6. Preferred financing method.

Demographically, married respondents tended to prefer less risky financing methods than their single counterparts. This preference can be attributed to the inclination of married individuals to avoid jeopardizing their family's financial stability with high-risk business ventures.

4.1.5. Supporting Agencies Programs

The survey included a critical section evaluating respondent satisfaction with the services provided by supporting agencies and programs. Figure 7 shows that respondents expressed the highest satisfaction with training, networking, and business planning services. Conversely, satisfaction was lowest with funding and copyright/intellectual property support. Notably, copyright/intellectual property support was the least utilized service, while funding and training were the most used services.

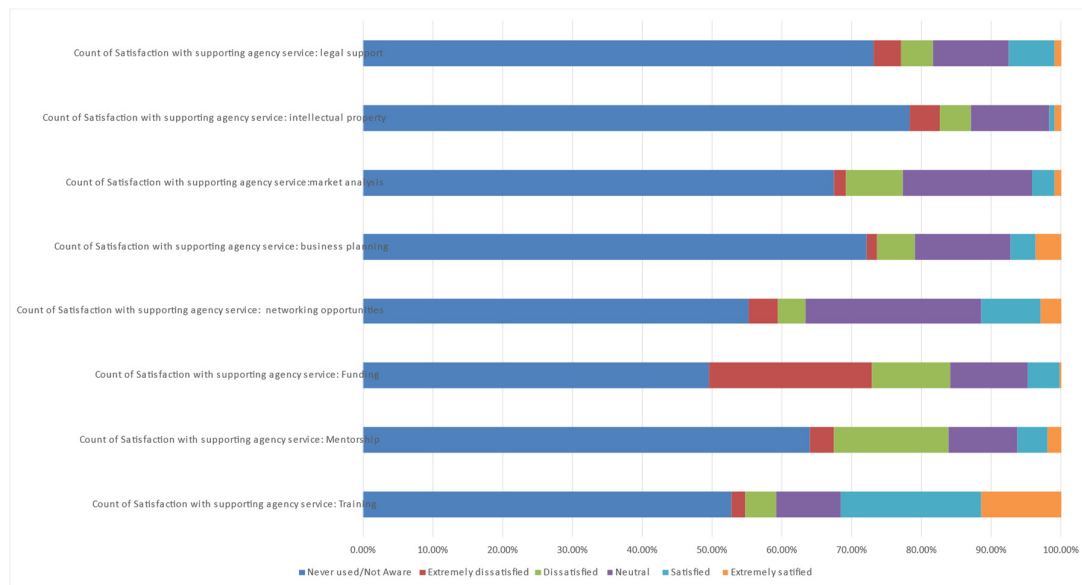


Figure 7. Satisfaction with supporting agencies/programs services.

Respondents were also asked about their agreement with two statements: “People are aware of supporting agencies/programs services” and “It is easy and clear to get support from supporting agencies and programs”. The responses highlighted a significant difference: approximately 24% of respondents answered positively regarding the population's awareness of these services, but only 9% agreed that obtaining support from these programs was easy and straightforward. This disparity suggests that the primary challenges in accessing support from these agencies and programs are more related to their criteria and acceptance processes rather than a lack of awareness about their services.

4.2. Validation of the Framework for the Qatar Entrepreneurship Model (QEM)

Considering Qatar's status as a resource-based economy and its aspirations for sustainable development, our previous paper introduced two innovative proposals aimed at fostering entrepreneurship, addressing challenges and needs, and ultimately aiding in the diversification of Qatar's economy and the growth of its private sector. These proposals include (1) the establishment of an ENT-Q Free Zone, a geographic constraint-free area designed for innovators, entrepreneurs, and investors, and (2) the creation of “Ryadah”, a digital platform dedicated to facilitating, accelerating, and enhancing the efficiency and effectiveness of establishing and operating entrepreneurial businesses and SMEs, while also providing networking and mentoring opportunities and attracting entrepreneurial financing. In the current paper, we utilized quantitative data to critically assess the challenges within Qatar's business ecosystem and validate the recommendations proposed earlier. This quantitative analysis was instrumental in further refining our proposed framework and

recommendations. Figures 8 and 9 present the final version of this framework alongside a detailed analysis of the push and pull factors influencing Qatar’s entrepreneurial ecosystem.

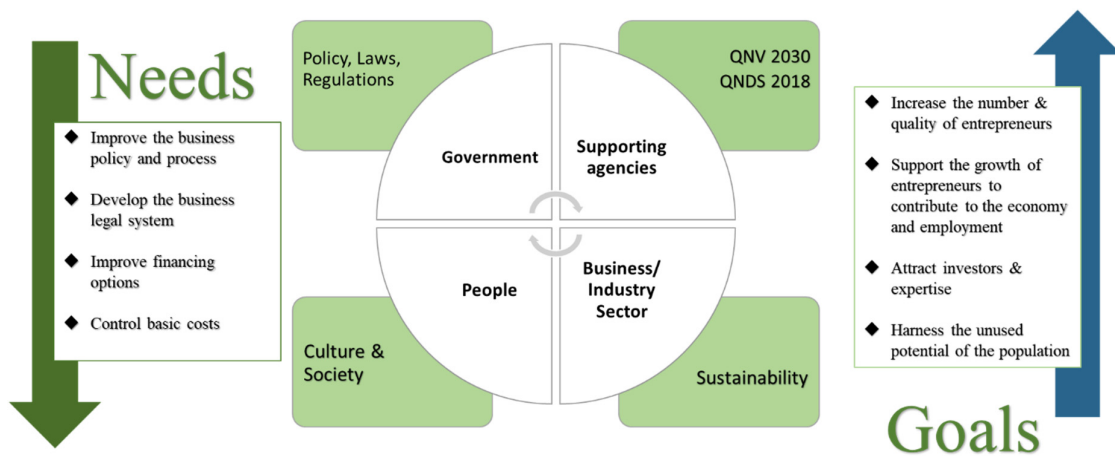


Figure 8. Enhanced policy framework for Qatar entrepreneurship model (QEM) drawn from interviews and literature review and validated by surveys.

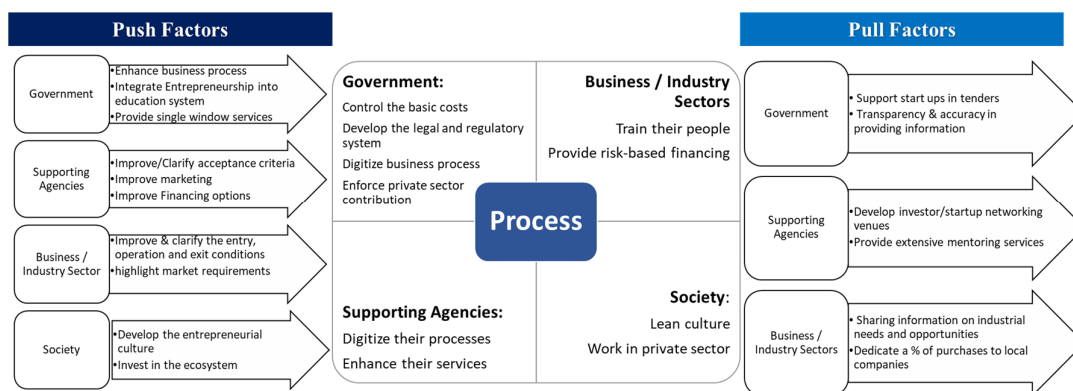


Figure 9. Validated QEM framework in terms of its key pull and push factors for the business ecosystem.

4.3. ENT-Q: Country-Wide Entrepreneurship Free Zone

The aim of establishing the geographically unconstrained “Entrepreneurial Free Zone (ENT-Q)” in Qatar is to offer a dynamic, internationally competitive environment for individuals with innovative ideas, proofs-of-concept, and prototypes, enabling them to start or scale their businesses without geographical limitations. The key features and benefits of ENT-Q include the following:

- **Tax Incentives and Low Rents:** ENT-Q start-ups will benefit from low-cost or free office and industrial space, reducing initial overheads and supporting business continuity.
- **Tendering Support and Agency Services:** ENT-Q plans to provide a quota for start-ups in open tenders and require local companies to purchase from these start-ups, aiding their growth and scalability. Additionally, start-ups will have access to services from all supporting agencies.
- **Progressive Policies and Procedures:** The zone will offer a streamlined, digital process for starting a business, distinct from the current complex system, along with regular monitoring to ensure compliance with laws and regulations.
- **Innovative Financing Options:** Multiple financing avenues, including grants, partnerships, and direct industry investments through the community service clause, will be available, with transparent selection criteria.

- **Dedicated Committees, Mentorship, and Support:** Commercial, legal, and technical committees will assist start-ups in disputes, and mentorship will be provided by pairing start-ups with industry experts.
- **Investor Relationship Section and Investment Platform:** ENT-Q will feature a platform for investors to find suitable business and partnership opportunities, supplemented by a percentage of industrial companies' income tax for investment and a committee-managed fund for unspecified investors requirements.

Free zones and technology parks significantly promoted entrepreneurship globally [67]. A specific portion of the survey focused on the proposed ENT-Q free zone and the potential advantages it could offer to Qatar's entrepreneurial ecosystem. Respondents overwhelmingly identified the simplification and streamlining of the business process as the most significant benefit of the ENT-Q free zone. This aligns with previous findings highlighting the complexities and challenges of Qatar's current business processes. Conversely, global mentorship and access to international expertise were perceived as less significant benefits of the free zone. Figure 10 presents a summarized view of these findings. These results underscore a clear need and a positive perspective towards establishing a geographically unconstrained free zone in Qatar. The findings suggest that such an initiative is desired and anticipated to address significant existing challenges. This positive outlook can be leveraged to advocate for governmental support in establishing the ENT-Q free zone.

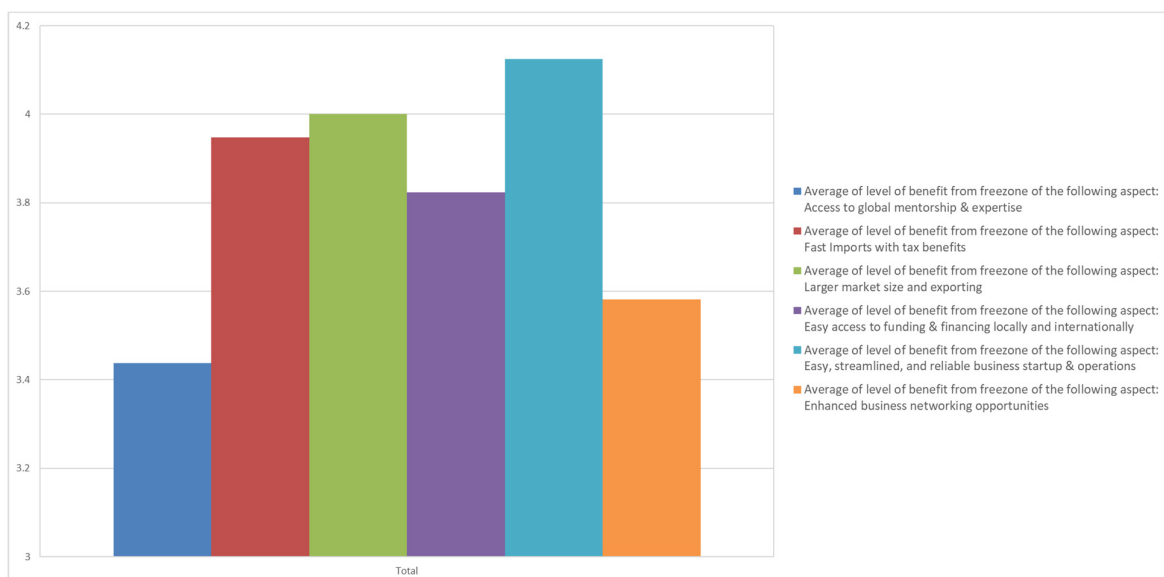


Figure 10. Perceived benefits of ENT-Q.

4.4. Ryadah: An Online Platform for All Business Processes under ENT-Q

Ryadah is envisioned as a comprehensive online platform designed to facilitate and accelerate the broader application of the Entrepreneurship-Qatar (ENT-Q) program. Its primary objective is to support the growth and connectivity of Qatar's entrepreneurs, mentors, investors, government, and supporting agencies. The platform aims to provide a centralized portal for all business-related services and needs, enhancing the accessibility and efficiency of these services for entrepreneurs. Critical features of Ryadah include the following:

- (1) **Comprehensive Government and Banking Integration:** Ryadah will facilitate online processing for government-related activities (registrations, renewals, visas, tax cards) and integrate banking services for loan applications, monetary changes, and salary transfers. It also includes a secure e-check system for payments and legal follow-up for non-payment cases.

- (2) **Financial Management and Notifications:** The platform will allow for the payment of various company bills (utilities, salaries, fees, taxes, rents) and provide timely notifications, reminders, and alerts for important deadlines, legal document expirations, new tenders, and payments.
- (3) **Business Information and Operational Services:** Ryadah will serve as a repository for crucial business data (market size, new companies, average salaries) and provide operational services such as transferring sponsorship, exit permits, and service requests.
- (4) **Agency Services and Tendering Interface:** It will offer various agency-related services (courses, funding, accounting, investor relations, events) through a single interface, focusing on service availability rather than provider identity. Additionally, there will be a tendering interface for application and participation in tenders, with government oversight to support local start-ups.
- (5) **Educational Resources:** The platform will include tutorials, FAQs, and online support to assist entrepreneurs in navigating and utilizing the platform effectively.

Overall, Ryadah is designed to streamline processes and services for entrepreneurs, focusing on service availability and details, thereby allowing entrepreneurs to concentrate more on their business growth and less on bureaucratic procedures.

Respondents were most concerned with digital security and a lack of personalized services when asked about their concerns about having an online platform for all business needs. They were least concerned with digital illiteracy, as seen in Figure 11. This is expected because most respondents are of a relatively younger age demographic and have more knowledge of online systems. These insights emphasize the importance of prioritizing security and privacy when developing the Ryadah platform. A model for this approach can be seen in the Metrash2 application, which securely delivers all Ministry of Interior (MOI) services to the public [68]. Additionally, it is suggested that Ryadah include an online support feature within the app. This would cater to specific requests or needs outside the standard service offerings, ensuring a more tailored and user-friendly experience for all users.

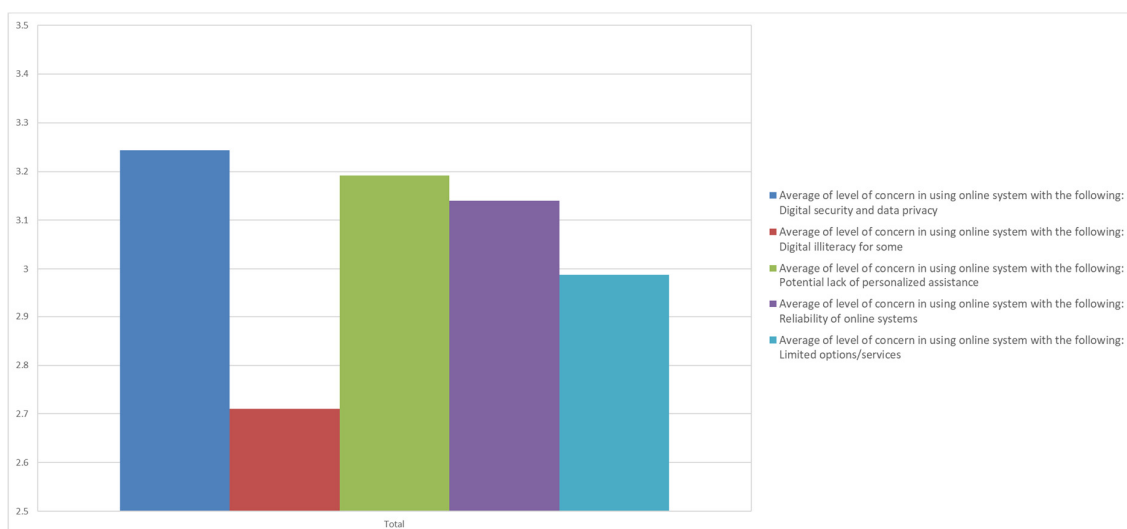


Figure 11. Level of concern with different aspects of Ryadah.

4.5. Recommendations, Roadmap, and Impact Analysis

In order to further address the challenges and constraints in the entrepreneurial ecosystem in Qatar, specific recommendations were made to different players; those recommended actions will later be proposed through a roadmap along with an impact assessment for each action item.

4.5.1. Recommendations for Government

Integrate Entrepreneurship into Education [1]: Incorporate entrepreneurship into academic curricula at various levels to foster a culture of entrepreneurship and encourage the development of future leaders.

Increase Access to Business Information [2]: Provide detailed data on imports, exports, market needs, and economic trends to assist entrepreneurs in making informed decisions.

Simplify Policies and Procedures [3]: Streamline the process of starting and operating a business with clear, accessible information and digital solutions.

Develop the Legal System [4]: Implement a dedicated commercial legal process for the swift resolution of disputes and provide legal support for small businesses against larger entities.

Establish ENT-Q Free Zones [5]: Create additional free zones with controlled rents to reduce overhead costs for entrepreneurs.

Establish Ryadah [6]: Develop an all-in-one platform for all business needs to help facilitate all entrepreneur's needs.

Figure 12 above shows the road map and impact assessment of government actions. ENT-Q and Ryadah are expected to have the highest impact since they tackle multiple hurdles in the ecosystem at once. They are expected to need between 2 and 3 years for implementation due to the complexity of the development. Simplifying the policies and procedures and increasing access to information are low-hanging fruits as they are expected to impact the ecosystem positively and are relatively easy to implement. Integrating entrepreneurship into the education system is a high-impact action, but it will require time to build and accommodate entrepreneurship courses into the curriculum. The development of the legal system is also impactful, as seen from the survey results, but it will require a moderate amount of time to improve the system.

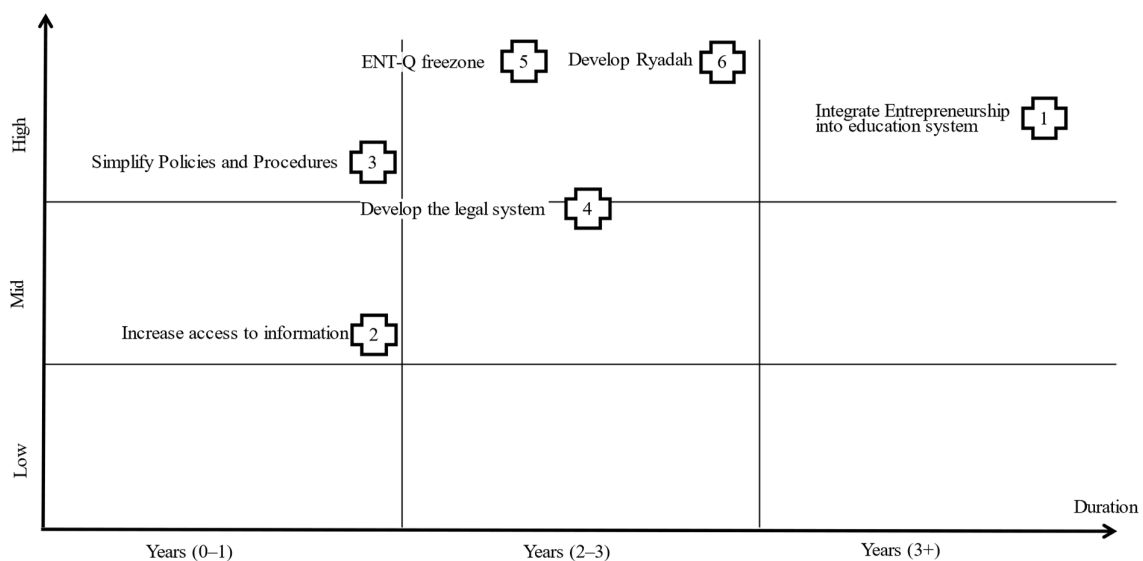


Figure 12. Road map and impact assessment of government actions.

4.5.2. Recommendations for Supporting Agencies:

Clarity in Financing Criteria [1]: Ensure transparency in the selection process for financial support to avoid nepotism and provide fair opportunities.

Select Committee Members Wisely [2]: Include entrepreneurs in committees to assess start-up ideas, leveraging their risk-taking experience and business insight.

Enhance Networking Events [3]: Organize frequent networking events to connect entrepreneurs, mentors, and investors for potential partnerships.

Apply non-disclosure agreements (NDAs) [4]: Use NDAs when dealing with entrepreneurs with innovative ideas to help protect the idea and increase the confidence/trust of applicants.

Provide Tailored Mentoring and Training [5]: Offer continuous and locally relevant entrepreneurship training and mentoring covering essential skills and knowledge.

Figure 13 above shows the road map and impact assessment of supporting agencies' actions. Clarification of financing criteria is expected to yield the highest impact due to the significant need for financing support, as seen in the survey. It is not expected to require a long time for implementation, as the criteria are already there; it is just a matter of having more clarity and transparency in its implementation. The rest of the recommendations are expected to have a moderate impact while not requiring a long time for implementation.

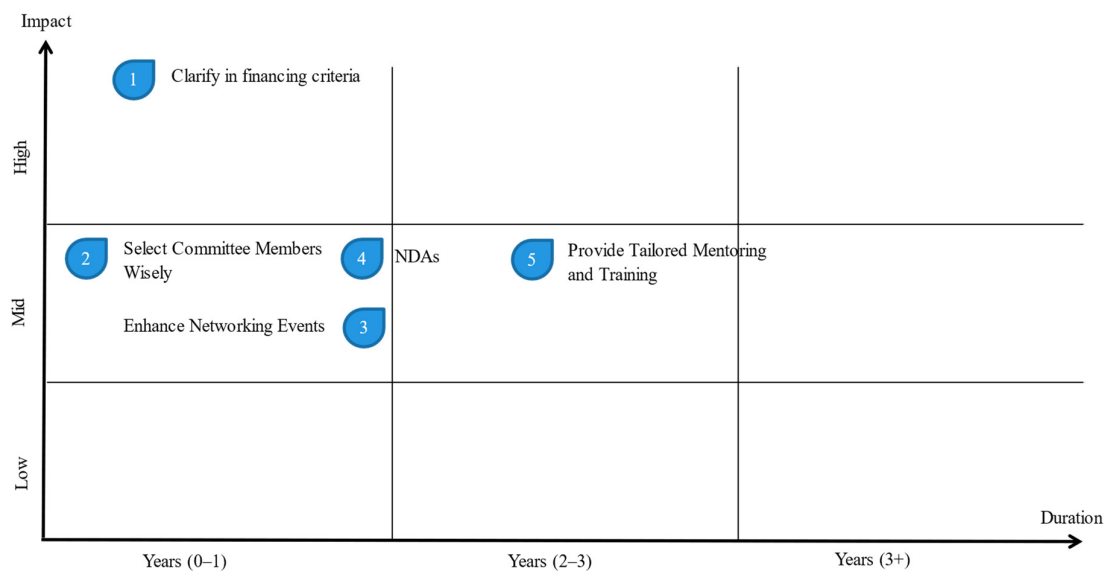


Figure 13. Road map and impact assessment of supporting agencies' actions.

4.5.3. Recommendations for Entrepreneurs and the Business Sector

Leverage Connections/Networks [1]: Build networks in critical areas to facilitate business establishment and growth.

Utilize Family Experience [2]: Do not hesitate to use resources and knowledge from family members with entrepreneurship experience.

Align Business with Passion and Expertise [3]: Focus on business fields that match personal expertise and passion.

Implementation of the lean concept [4]: Use the lean concept while developing businesses to increase business survivability and decrease risk.

Help develop and train experts [5]: Support the ecosystem by investing in people and developing experts.

Develop entrepreneurship culture [6]: Have a positive outlook toward working in private sectors, failed entrepreneurs, risk-taking, and innovation.

Figure 14 above shows the road map and impact assessment of entrepreneurs and business sector actions. However, the development of an entrepreneurship culture has the highest impact. It also requires the most time due to its complexity and the requirement for significant effort by all key players in the ecosystem. The rest of the recommendations all have a medium impact due to their localized impact on a person/group/sector instead of on the whole ecosystem.

It is expected that by implementing the aforementioned action items by different stakeholders, especially the two innovative solutions (Ryadah and ENT-Q), the overall entrepreneurship ecosystem will develop in Qatar. This will eventually lead to a strong private sector capable of supporting economic diversification and ultimately achieving a knowledge-based economy.

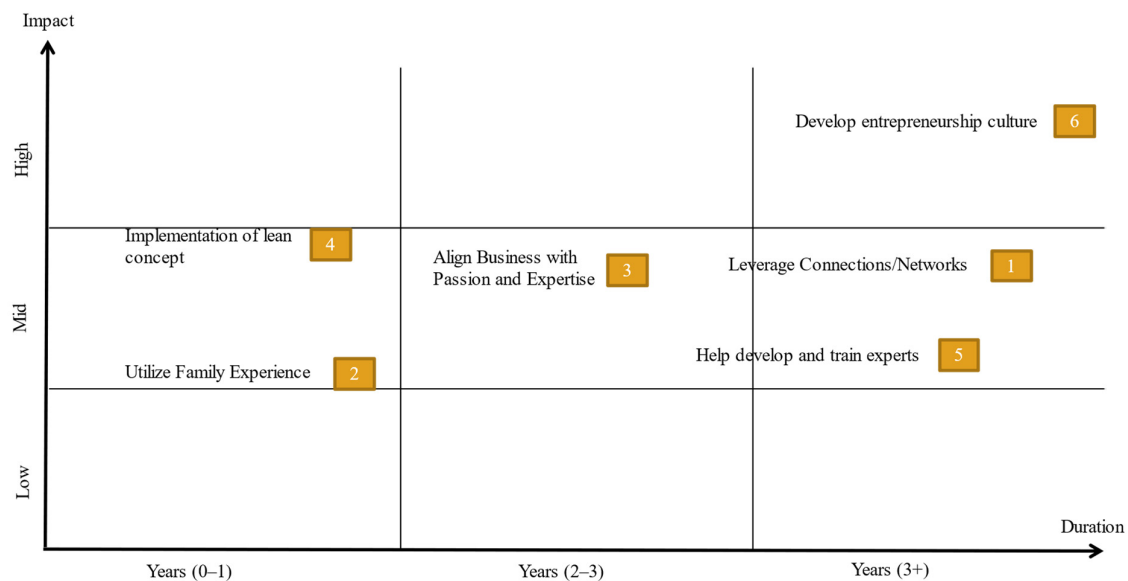


Figure 14. Road map and impact assessment of entrepreneurs and business sector actions.

5. Conclusions, Limitations, and Recommendations for Future Research

This paper provided a comprehensive explanation of the status, issues, challenges, and recommendations for entrepreneurship in resource-based economies, with a particular focus on Qatar. Building on previous studies, it uses a mix of explanatory and quantitative methods to refine and validate a framework for enhancing entrepreneurship in such economies. The study's key insights include the following:

Entrepreneurship's Role in Economic and Social Development: Entrepreneurship plays a vital role in the economic and social development of resource-based economies, particularly those transitioning towards sustainability. In these economies, entrepreneurship's primary focus is on diversifying revenue streams, fostering economic independence, and generating employment opportunities rather than merely increasing total revenue. Norway is widely considered a successful example of a resource-based economy transitioning into a more diversified knowledge-based economy with the support of entrepreneurship [69–71].

Government Policies for Entrepreneurial Growth: Effective government policies are essential for nurturing entrepreneurship. Simplifying business processes and refining the legal system are key steps to create a conducive environment for entrepreneurial ventures in Qatar. Enhancing these policies will address one of the major barriers to entrepreneurship in the state.

Cultural and Social Dynamics in Entrepreneurship: In Qatar, the complex relationship between socio-cultural factors and entrepreneurship cannot be overlooked. Understanding local contexts is crucial, especially considering the unique challenges faced by women entrepreneurs in Qatar's cultural landscape. Additionally, the entrepreneurial drive in Qatar is predominantly opportunity-based rather than necessity-driven, a context that should be factored into initiatives aimed at stimulating entrepreneurial engagement.

Financial Support and Incubation for Entrepreneurs: Accessible financial support and efficient incubation programs are fundamental for fostering robust entrepreneurial activity in Qatar. Adapting alternative finance models to suit entrepreneurial needs can eliminate significant financial barriers, enabling more dynamic entrepreneurial development.

Innovation, Technology, and Digitization in Entrepreneurship: Innovation and technology play a pivotal role in driving entrepreneurship, particularly with a focus on digital transformation and regulatory frameworks. Leveraging technology and digitization to develop robust online systems and applications that can connect entrepreneurs with key stakeholders is critical for facilitating their business processes and meeting their needs more effectively.

Impact of Entrepreneurial Education: Tailoring the education system to include entrepreneurial studies is crucial for fostering innovation and aligning with Qatar's national development goals. Integrating entrepreneurship into the education system acts as a major catalyst, potentially increasing both the quantity and quality of entrepreneurs, thereby enhancing the overall entrepreneurial ecosystem. Singapore is one successful example of incorporating entrepreneurship into education, which results in better-equipped future entrepreneurs [72].

Networking and Collaboration for Entrepreneurial Success: The importance of networks and collaboration in providing resources and opportunities for entrepreneurs is significant. Establishing connections between entrepreneurs, major stakeholders, and investors is vital for identifying opportunities, acquiring key partnerships, and gaining essential knowledge for development.

Global Entrepreneurship and Qatar's International Ambitions: Qatar aims to enhance its role in the global entrepreneurial landscape, necessitating policies that support international market entry and cross-border partnerships. Given its small population and market size, Qatar needs to strengthen its international collaborations and facilitate entry into global markets.

The study concludes with strategic recommendations for various stakeholders, including the government, supporting agencies, and entrepreneurs. Key proposals include the establishment of the ENT-Q Free Zone and the Ryadah platform, designed to address multiple challenges in Qatar's entrepreneurial ecosystem.

A list of major recommendations is highlighted below for each stakeholder:

Recommendations for Government:

- Integrate entrepreneurship into education.
- Increase access to business information.
- Simplify policies and procedures.
- Develop the legal system.
- Establish the ENT-Q Free Zone.
- Establish Ryadah.

Recommendations for Supporting Agencies:

- Ensure clarity in financing criteria.
- Select committee members wisely.
- Enhance networking events.
- Apply non-disclosure agreements (NDAs).
- Provide tailored mentoring and training.

Recommendations for Entrepreneurs and the Business Sector:

- Leverage connections/networks.
- Utilize family experience.
- Align business with passion and expertise.
- Implement the lean concept.
- Help develop and train experts.
- Develop entrepreneurship culture.

The roadmap and impact assessment outlined in the study highlight the potential benefits and implementation timelines of these recommendations. They suggest significant positive impacts on the entrepreneurial landscape, including increased efficiency in policy-making, growth in the number and quality of entrepreneurs, reduced unemployment, and greater economic diversification.

In conclusion, this research contributes to a deeper understanding of the entrepreneurial dynamics in resource-based economies along with context-specific requirements. It provides actionable strategies for nurturing entrepreneurship in Qatar and similar countries, paving the way for sustainable economic development and diversification.

The application of this study's findings is anticipated to yield immediate advantages, such as a rise in both the quantity and quality of entrepreneurs, an improvement in

the business landscape, an increase in product diversity, and a boost in employment opportunities. Over the long term, expected benefits include drawing external investments, enhancing local expertise, alleviating the burden on government resources, and achieving greater economic independence and diversity.

Supplementary Materials: The following supporting information can be downloaded at: <https://www.mdpi.com/article/10.3390/su16072940/s1>, Questionnaire.

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