

The logo for arabnet, featuring the word "arabnet" in a lowercase, sans-serif font. The letter "a" is white, while "rabnet" is black. A small orange triangle is positioned above the top right corner of the letter "t".

arabnet

BUSINESS INTELLIGENCE

LEBANESE INNOVATION ECONOMY

TECH STARTUPS

2018



arabnet

FOREWORD

What level of impact has Circular 331 afforded Lebanese digital startups? Banque du Liban's (BDL) Circular 331, issued in 2013, is the founding document for jump-starting the Lebanese entrepreneurial ecosystem and was introduced in a bid to halt the brain drain and boost local employment, whilst recognizing the need to fuel a Lebanese Knowledge Economy (LKE). The circular initially aimed to provide a capital injection of over \$400 million into the Lebanese entrepreneurship ecosystem. In 2016, circular 419 was issued allowing banks to invest up to \$600 million collectively in Lebanese tech startups. This amount represents 4% of Lebanese banks' capital.

With over 100 investments having taken place between 2013-2016, Lebanon is one of the thriving capitals of digital innovation in the MENA. Thus, it is evident that Circular 331 boosted the startup scene, as witnessed with the rise of more startups, accelerators, venture capital, and ecosystem support programs.

Lebanese tech startups face many obstacles in their entrepreneurial journey. To name a few: low availability of tech talent, the Lebanese regulatory and policy framework, and lack of access to customers and markets. However, it is not all doom and gloom; as there are many strengths to the ecosystem. The Lebanese startup scene has witnessed several exits, among which are Cleartag, Diwaneer, and Shahiya.com. The thriving ecosystem has also witnessed a surge in co-working spaces and the emergence of a strong digital sector cluster in Beirut Digital District (BDD).

Supporting the sector has also become a top priority at all levels of the Lebanese government. The Ministry of Telecom has taken a leadership role, recently launching MIC Ventures, a \$50M fund supported by Alfa and Touch. At a higher level, Prime Minister Saad Hariri and the team at the Grand Serail have been engaging closely with the startup community and working on a number of initiatives to help improve the business environment for innovation - with a short-term focus on regulatory reforms that are much needed.

TABLE OF CONTENTS

FOREWORD	3
INTRODUCTION	5
BACKGROUND: A TRANSFORMATIONAL ECONOMY	5
An Entrepreneurship Ecosystem	5
Lebanese Digital Startup Ecosystem	6
Self-Perceptions of Entrepreneurship	7
THE STUDY: OBJECTIVES AND METHODOLOGY	7
Figure 1. The Distribution of Respondent Profiles	7
OVERALL ECOSYSTEM STRENGTHS AND WEAKNESSES	8
Figure 2. Ranking Entrepreneurship Ecosystem Domains	9
ACCESS TO FUNDING	10
Figure 3. Amount of Funding Raised and Rounds Received	11
Figure 4. Source of Tech Startup Funding	11
Figure 5. Funding Motivators	12
Roundtable Findings. Access to Funding	12
ECOSYSTEM SUPPORT SERVICES	14
Figure 6. Type of Support Services Available to Tech Startups	15
Roundtable Findings. Ecosystem Support	15
ACCESS TO TALENT AND TECH SKILLS	16
Figure 7. Factors Influencing the Availability of Talent	17
Figure 8. Availability of Skill Sets	18
Roundtable Findings. Access to Talent and Tech Skills	19
ACCESS TO INFRASTRUCTURE	20
Figure 9. Infrastructure Required By Tech Startups	21
Roundtable Findings. Infrastructure Support	21
ACCESS TO MARKETS	22
Figure 10. Support Needed To Attract Business	23
Roundtable Findings. Accessing Customers	23
REGULATORY FRAMEWORK	24
Figure 11. Regulatory Barriers	25
Roundtable Findings. Regulations and Policies	25
CONCLUSIONS	27
APPENDIX	28
Contributors	28
Survey	28

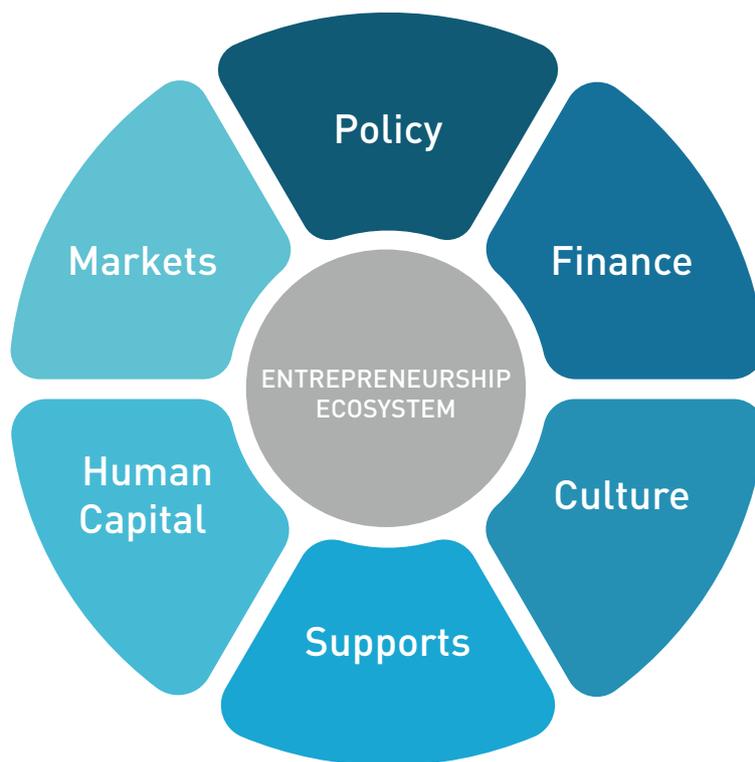
INTRODUCTION

BACKGROUND: A TRANSFORMATIONAL ECONOMY

AN ENTREPRENEURSHIP ECOSYSTEM

Daniel Isenberg, a Professor of Entrepreneurship Practice and founding Executive Director of the Babson Entrepreneurship Ecosystem Project, is the main creator of what is known as Babson Global's "Domains of the Entrepreneurship Ecosystem." Isenberg refers to this model as an 'entrepreneurship ecosystem strategy for economic development.'¹

Inspired by the "Domains of the Entrepreneurship Ecosystem," the research analyzes Lebanese tech startups through the lens of the model's six pillars. These pillars include the following: ease of access to funding, ease of access to talent and tech skills, strength of infrastructure and support organizations, ease of access to markets and customers, a culture of entrepreneurship, and finally regulatory frameworks.



LEBANESE DIGITAL STARTUP ECOSYSTEM²

Lebanon displays an exceptionally high number of funds for such a small country - driven by Circular 331 of the Central Bank of Lebanon - where Lebanon hosts 13% of the total number of investors in MENA. Over the past four years and in comparison to other MENA markets, Lebanon has steadily risen in the ranks in both number of deals (around 40 deals in 2016) and value of deals (around \$56 million in 2016).

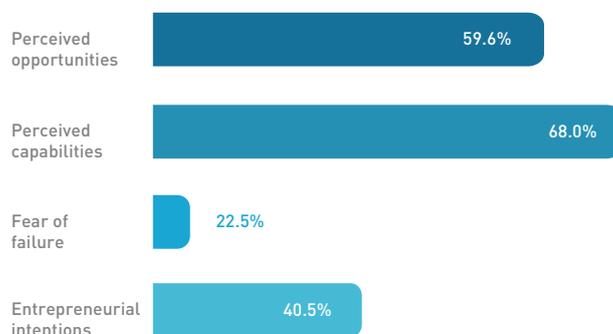
	Number of Deals				Ranking			
	2013	2014	2015	2016	2013	2014	2015	2016
UAE	33	57	66	78	1	1 ---	1 ---	1 ---
Lebanon	11	21	31	37	5	5 ---	3 ↑	2 ↑
KSA	19	24	21	30	4	4 ---	4 ---	3 ↑
Egypt	30	32	13	26	2	3 ↓	6 ↓	4 ↑
Jordan	25	39	33	21	3	2 ↑	2 ---	5 ↓
Palestine	5	13	14	7	7	6 ↑	5 ↑	6 ↓
Tunisia	2	11	9	7	9	7 ↑	7 ---	7 ---
Bahrain	6	3	4	6	6	9 ↓	9 ---	8 ↑
Morocco	5	4	6	5	8	8 ---	8 ---	9 ↓
Syria	1	1	0	1	11	11 ---	12 ↓	10 ↑
Algeria	2	2	1	0	10	10 ---	11 ↓	11 ---
Kuwait	0	1	3	0	14	12 ↑	10 ↑	11 ↓
Oman	1	0	0	0	12	13 ↓	13 ---	11 ↑
Qatar	1	0	0	0	13	14 ↓	14 ---	11 ↑

	Value of Deals in Million				Ranking			
	2013	2014	2015	2016	2013	2014	2015	2016
UAE	\$35	\$118	\$160	\$799	2	2 ---	1 ↑	1 ---
Lebanon	\$7	\$26	\$30	\$56	5	4 ↑	2 ↑	2 ---
Jordan	\$31	\$13	\$22	\$15	3	5 ↓	3 ↑	3 ---
Morocco	\$4	\$1	\$3	\$15	6	8 ↓	7 ↑	4 ↑
Egypt	\$77	\$155	\$7	\$12	1	1 ---	5 ↓	5 ---
Tunisia	\$0.10	\$2	\$1	\$8	11	7 ↑	10 ↓	6 ↑
Palestine	\$2	\$4	\$6	\$7	7	6 ↑	6 ---	7 ↓
KSA	\$31	\$57	\$14	\$5	4	3 ↑	4 ↓	8 ↓
Bahrain	\$0.40	\$0.60	\$0.60	\$1	12	10 ↑	11 ↓	9 ↑
Syria	\$0.05	\$0.01	\$0	\$0.05	9	12 ↓	12 ---	10 ↑
Algeria	\$2.40	\$1.20	\$2.50	\$0	8	9 ↓	8 ↑	11 ↓
Qatar	\$0.20	\$0	\$0	\$0	13	14 ↓	14 ---	11 ↑
Oman	\$0.01	\$0	\$0	\$0	10	13 ↓	13 ---	11 ↑
Kuwait	\$0	\$0.20	\$2	\$0	14	11 ↑	9 ↑	11 ↓

² ArabNet Business Intelligence. (2017). The State of Digital Investments in MENA 2013-2016.

SELF-PERCEPTIONS OF ENTREPRENEURSHIP³

The Global Entrepreneurship Monitor (GEM) adult population survey for Lebanon addresses self-perceptions of establishing one's own business. The survey results regarding adult self-perceptions demonstrated that 68% of survey participants perceived themselves to have the required business skill-set, 60% Lebanese adults' perceived positive opportunities to start a business, and very few displayed fear of failure.

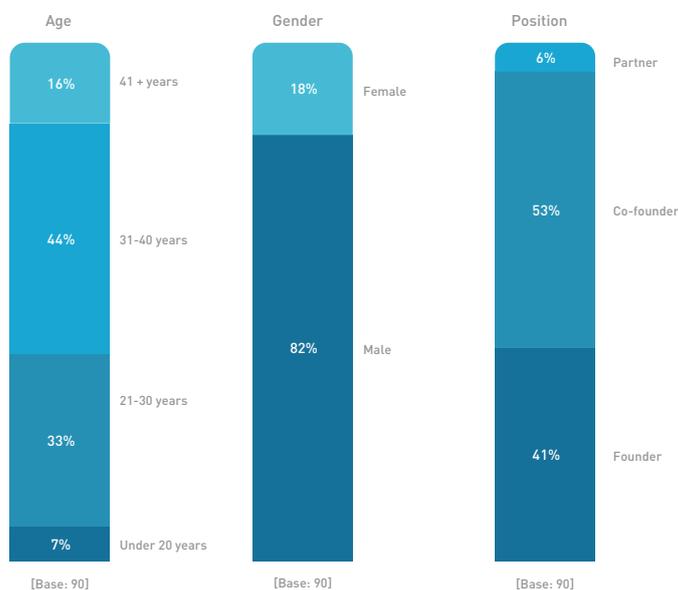


THE STUDY: OBJECTIVES AND METHODOLOGY

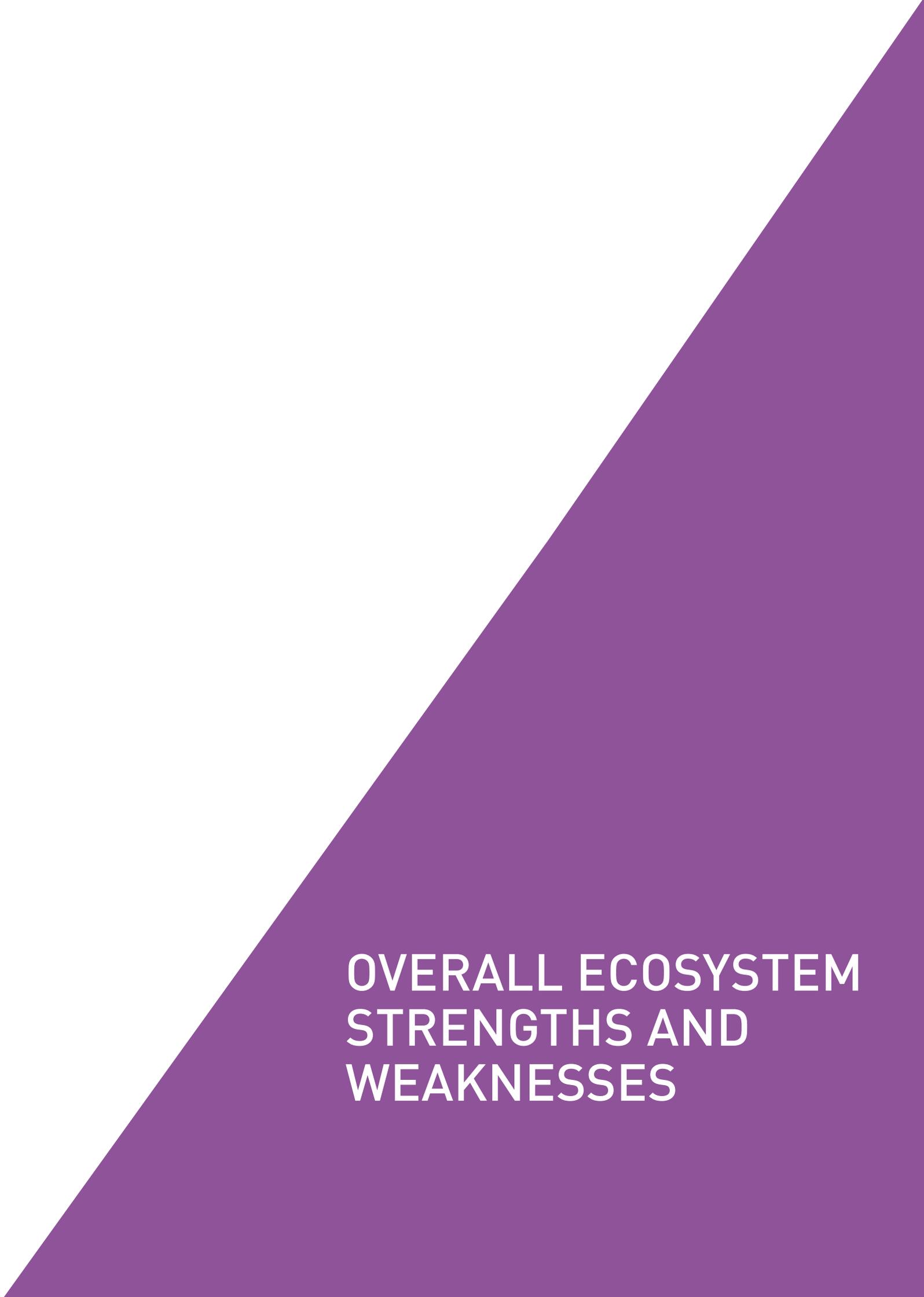
This research is a holistic study utilizing a mixed-methodology approach while analyzing the entrepreneurship ecosystem. First, the research measures the perceptions of Lebanese tech startups regarding the challenges and opportunities facing the entrepreneurial ecosystem. The survey targets owners of tech and digital startups with a working product or service based in Lebanon. Using a referral-sampling approach, the online survey sampled digital startup founders, co-founders, or partners. The digital startups were contacted through ArabNet's startup database, ArabNet's network of technology investors and media partners, and through push marketing via social media posts. Survey data was collected from Nov. 2017 through Jan. 2018. The sample size of 90 respondents guarantees a margin of error of 6.5% and a confidence level of 95% based on the estimated population size of Lebanese startups. Second, the research incorporates roundtable findings. The roundtable, conducted in Beirut in 2017 and titled "Supporting Entrepreneurship and Innovation", consisted of industry stakeholders and decision makers. It focused on measuring the impact of Circular 331 and evaluating market opportunities. By combining the findings of the quantitative startup survey and the qualitative roundtable findings, the report aims to highlight the gaps and strengths of the ecosystem. The study also aims to guide vested stakeholders to make more informed decisions in their investments, programs, projects, and policies.

FIGURE 1. THE DISTRIBUTION OF RESPONDENT PROFILES

Respondent profiles reveal that the majority of the surveyed are male participants (82%). Almost half of all surveyed are in the more mature age bracket of 31 years to 40 years old (44%) suggesting that the sample constitutes of more experienced entrepreneurs.



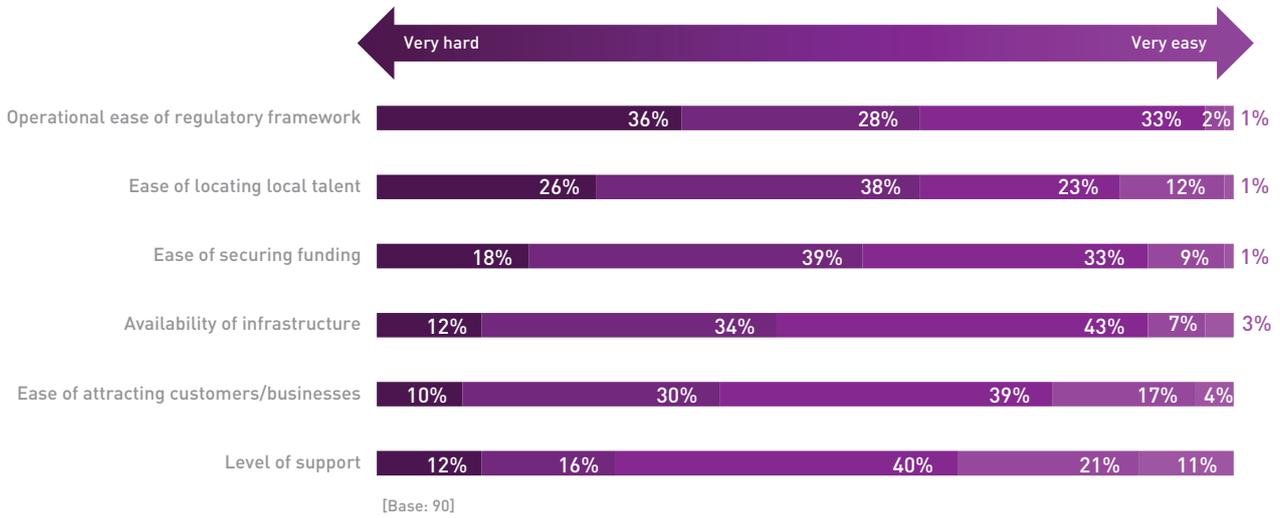
³ Global Entrepreneurship Monitor 2016 National Report. (2016). Lebanon.



OVERALL ECOSYSTEM STRENGTHS AND WEAKNESSES

FIGURE 2. RANKING ENTREPRENEURSHIP ECOSYSTEM DOMAINS

A quick look at the below figure demonstrates that the ecosystem faces many challenges. The top two impediments tech startups face are difficulties in navigating the regulatory framework (64%) and in accessing local talent (64%). On the other hand, entrepreneurs identified ecosystem strengths as the availability of startup support services and access to markets / customers. A third of surveyed startups claim support services (32%) as a key strength of the ecosystem. While 21% startups, identify attracting new business as a strength





ACCESS
TO FUNDING



FIGURE 3. AMOUNT OF FUNDING RAISED AND ROUNDS RECEIVED

Reflecting an exceedingly early-stage ecosystem, roughly more than half of the survey participants raised between one to two rounds of funding (57%). Only 9% raised three rounds of funding or more. It is interesting to note that a third of all surveyed startups did not receive any round of funding (34%). Analyzing the amount of funding raised, 65% of startups raised seed amounts, where the majority of amounts raised range between less than \$50,000 (29%) and \$50,000 to \$0.5 million (36%). This highlights again the fact that a large portion of deals in Lebanon remain in their early stages. This reveals a gap in growth-stage tech startups; thus, potentially an opportunity for growth hacking support and growth stage funding.

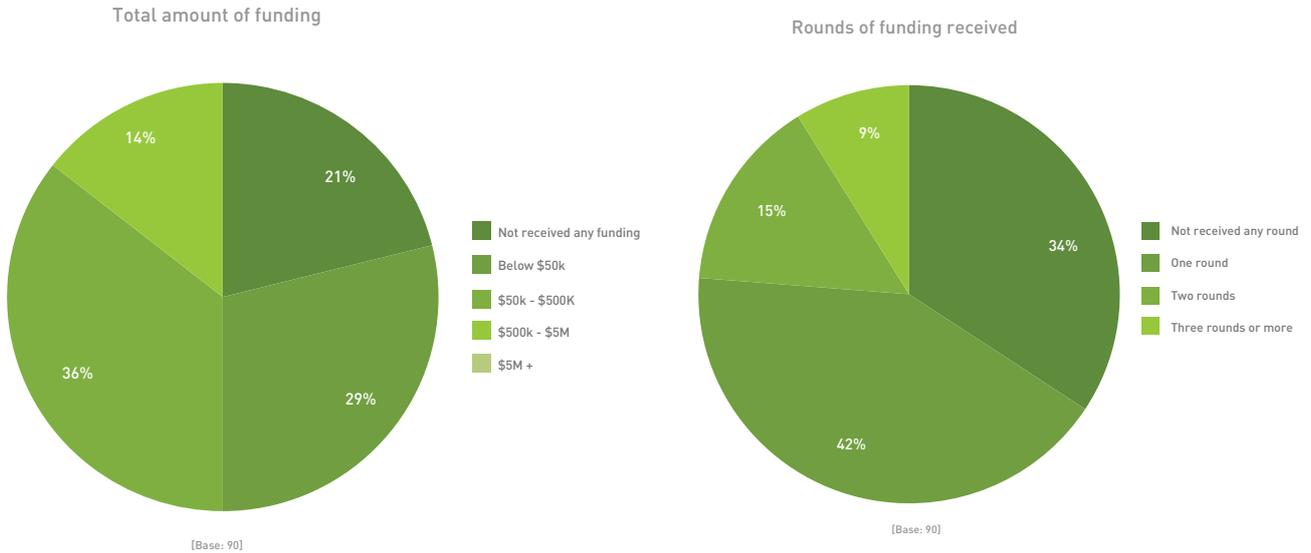


FIGURE 4. SOURCE OF TECH STARTUP FUNDING

The tech startups surveyed are heavily dependent on non-equity funding, where 68% use personal savings for their business, and approximately one-third claim they used competition funds (30%), followed by grants (22%), and bank loans (13%). When it comes to equity funding, over a quarter of startups surveyed have raised funding from angel networks (26%), while 22% access funding from accelerators, and 20% access funding from venture capital. These figures are in line with the findings of the amounts raised and rounds received by tech startups. BDL's Circular 331 most likely led to an increase in equity as a source of funding (see Foreword).

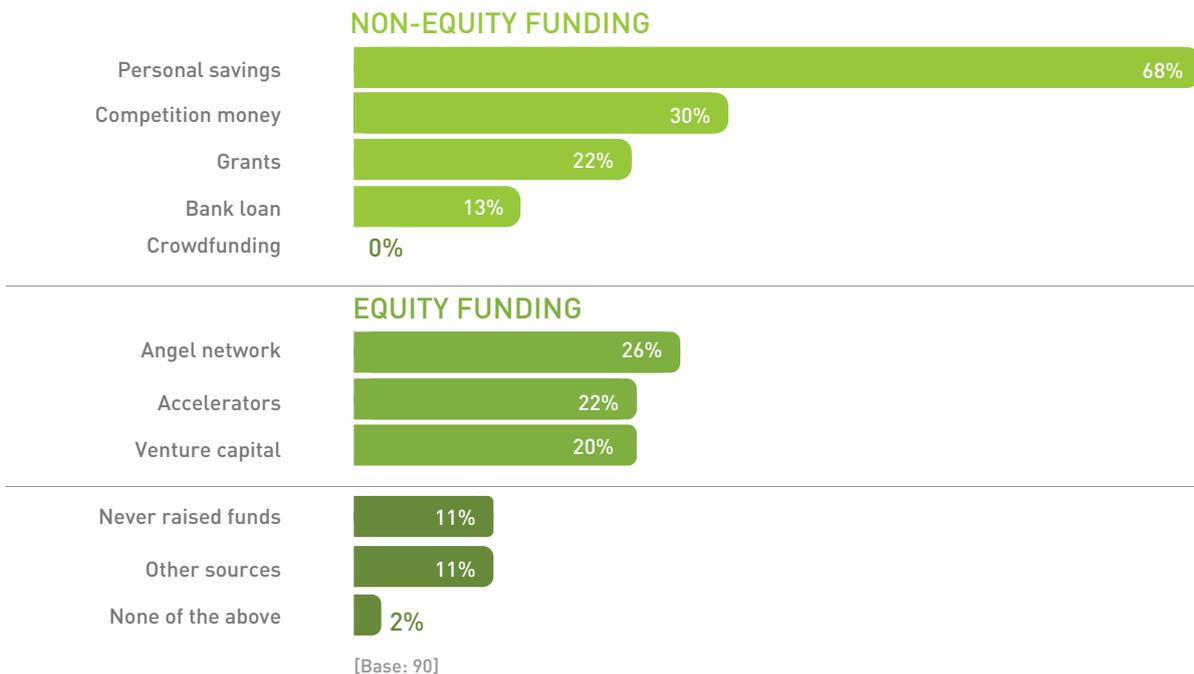


FIGURE 5. FUNDING MOTIVATORS

Analyzing what motivates startups when it comes to selecting a source of funding, the two biggest influencing factors are ecosystem support (such as such as mentorship, workspace, legal advice, etc.) and the avoidance of risk. 80% of startups claim that the need for ecosystem support motivated them to apply to accelerator programs. Other motivational factors that highly correlate with seeking ecosystem support include competition money (74%) and public and nongovernmental funding (70%). The second biggest motivator, less risk, also includes competition money (74%). Less than half of the startups agree that less risk was their motivator to use their personal savings (39%) and to contact angel networks (39%). It is interesting to note that venture capital (11%) is perceived as high risk. On the other hand, accessing markets and customers is a big motivator for choosing venture capital funding (56%). Lack of access to investors drives startups to consider non-equity funding, such as bank loans (42%) and personal savings (31%). While, increased control over a startup drives tech startups to consider angel networks (43%). A quick glance at the table demonstrates that seeking access to markets and ecosystem support are the leading motivators for equity funding.

FUNDING MOTIVATORS	Personal savings	Competition money	Angel network	Grants	Accelerators	Venture capital	Loan from a bank	
Seeking support (mentorship, workspace, etc.)	41%	74%	43%	70%	80%	33%	17%	[Base: 33]
Less risky	39%	37%	39%	30%	25%	11%	17%	[Base: 28]
More control over startup	26%	26%	43%	20%	20%	22%	33%	[Base: 23]
Lack of access to certain types of investors	31%	19%	17%	20%	15%	22%	42%	[Base: 21]
To access to markets/customers	26%	44%	30%	40%	40%	56%	33%	[Base: 20]

ROUNDTABLE FINDINGS. ACCESS TO FUNDING

When discussing access to funding with ArabNet's roundtable participants, the topic garnering the most attention is venture capital funds and the abundance of money in the Lebanese market. This is in concurrence with the survey results: one-fifth of the startup respondents received funding from venture capital, meanwhile the biggest motivator for approaching venture capitalists is access to markets. Below is a deeper analysis of what the roundtable participants discussed with regard to access to funding

PROS

INTEREST There is quite a lot of interest in the Lebanese entrepreneurial ecosystem.

FUNDS Lebanese VC funds are receiving many applicants.

KNOWLEDGEABLE The ecosystem has many experienced and knowledgeable investors.

LIFE CYCLE Solid coverage of life cycle, especially during the angel and early stages.

CONS

QUALITY VENTURES Although there is interest, quality ventures remain low.

WANNAPRENEURS All the hype and money is leading to "wannapreneurs."

RISK AVERSE Since the Circular 331 subsidies, VCs should be motivated to take bigger risks.

EARLY STAGE There is an early stage gap. The gap consists of a couple of factors such as:

- 1) More activity required vis-à-vis angel investors and seed investors (\$50K- \$300K) and
- 2) Private funds need to be incentivized to conduct deals and sector expertise is needed to de-risk it.

■ PROS

MONEY There is a lot of VC money available

ACCELERATORS There are many good quality accelerators.

■ CONS

SEED STAGE Entrepreneurs are skipping the early seed stages.

- 1) They are not participating in accelerator programs.
- 2) They are going directly to VCs before they are ready.

EQUITY Capital tables make exits difficult for startups especially when they have already given up lots of equity at an early stage. Investors over acquire equity from startups making it less lucrative for a buy out.

LINKAGES VCs are not contributing enough to shopping their companies to follow on investors, acquirers, or potential commercial customers.

INCREASE EXITS Need much more companies to have exits. VCs can do more to facilitate exit strategies.

AWARENESS More awareness and education concerning the presence and benefits of early stage investment is required.

EQUITY Some entrepreneurs prefer to skip the early stage so as not to lose too much equity too soon.

EARLY STAGE Early stage startups face many issues, such as:

- 1) Lack of a tech co-founder;
- 2) Lack of full-time commitment; and
- 3) Stale and uninspired ideas.

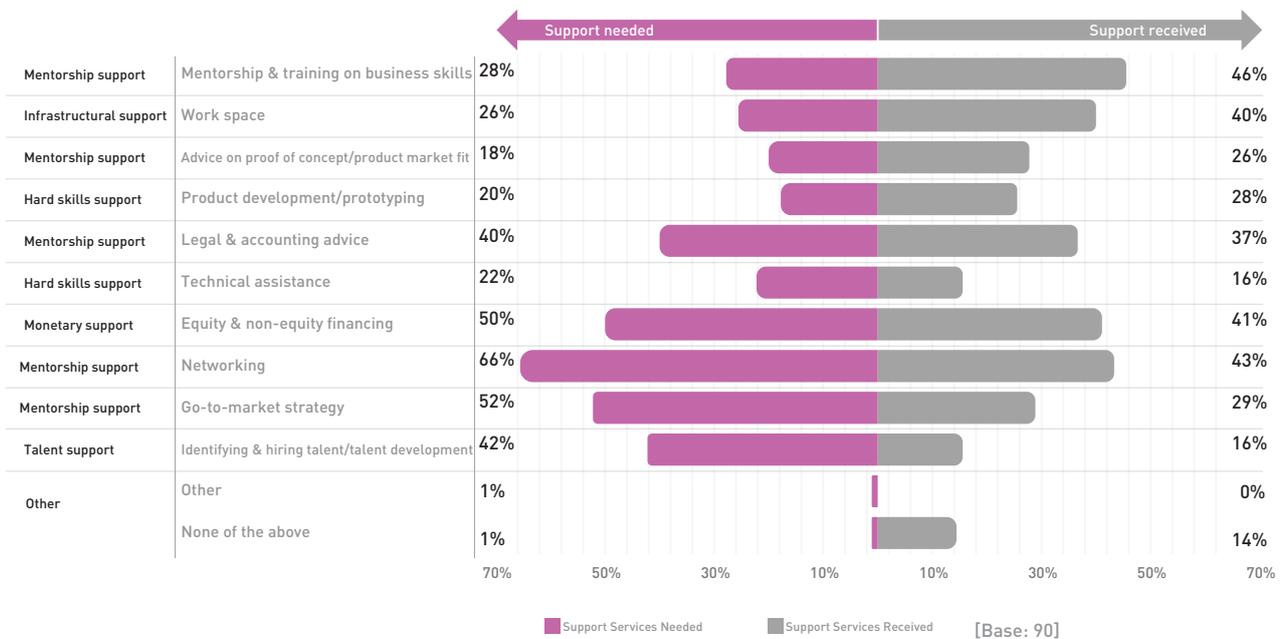


ECOSYSTEM
SUPPORT
SERVICES



FIGURE 6. TYPE OF SUPPORT SERVICES AVAILABLE TO TECH STARTUPS

Surveyed startups are asked to list the support services that they require and that they have received. The below chart ranks the services by the largest gap between need and supply. In line with the findings of the previous table (Figure 5), nearly half of the respondents mention that they have received ecosystem support such as mentorship in marketing and pitching (46%) and access to workspaces (40%). The support services that display the largest gaps (where need for support exceeds supply) are talent support – such as identifying and hiring talent / talent development (a 27% need gap) - access to markets - such as go-to-market strategy (a 23% need gap) and networking (a 22% need gap). One interesting finding is that a low supply and low demand gap exists for monetary support (equity and non-equity financing). This is evidence that under half of startups have received some form of financing for their businesses (41%).



ROUNDTABLE FINDINGS. ECOSYSTEM SUPPORT

Talent support displayed the largest need gap among the startups surveyed. Roundtable findings reflect similar sentiments, where the need for greater mentorship, knowledge transfer, and growth experience is paramount. Below is a deeper analysis of the roundtable findings on the type of ecosystem support available and the most prevalent gaps.

PROS

MENTORSHIP There is a lot of interest in mentorship programs.

REGIONAL CONNECTIONS The ecosystem has many connections with regional entrepreneurs who can contribute to knowledge sharing and best practices.

DIASPORA Successful Lebanese entrepreneurs are returning to the country.

CONS

MENTORSHIP Interest in mentorship can be for the wrong reasons and not well structured for gaining skill / knowledge.

SUPPORT There are lots of first time entrepreneurs that require greater support.

PROS

NETWORKING To access talent there is a need for networking in order to bring in global / regional expertise.

CONS

TRAINING Greater management training is required for entrepreneurs, especially guidance hands-on sales and marketing training.

BRANDING Need to brand the Lebanese "tech industry" and to change perceptions. This is to encourage outsiders to collaborate support.



ACCESS
TO TALENT
AND TECH
SKILLS



FIGURE 7. FACTORS INFLUENCING THE AVAILABILITY OF TALENT

Startups face two key education-connected obstacles when recruiting talent: first, the lack of required skills and second, a curriculum problem. Nearly three quarters of all surveyed startups believe that there is a lack of Lebanese talent with the right experience and skill sets needed (71%) and 65% claim that the Lebanese education system does not equip young graduates/entry level employees with the knowledge and skills required. There is a clear need for upskilling local talent and fresh graduates by priming them for the digital economy. This could be an opportunity for technical training centers / program and certifications. It is interesting to note that over half of the surveyed mentioned a principal setback when hiring is locating talent with the right work ethic, such as coming to work on time, delivering assignments on time, etc. (54%). This is an opportunity to introduce business ethics classes into mentorship, accelerator, and incubator programs. Respondents' mention that another obstacle is competition from big private companies (such as banks) and family pressure to work in the private sector (51%). Thus, startups main competitors for Lebanese talent is the private sector (60%) and not government-based jobs (18%). This highlights the importance of raising awareness on equity as a compensation for attracting talent.

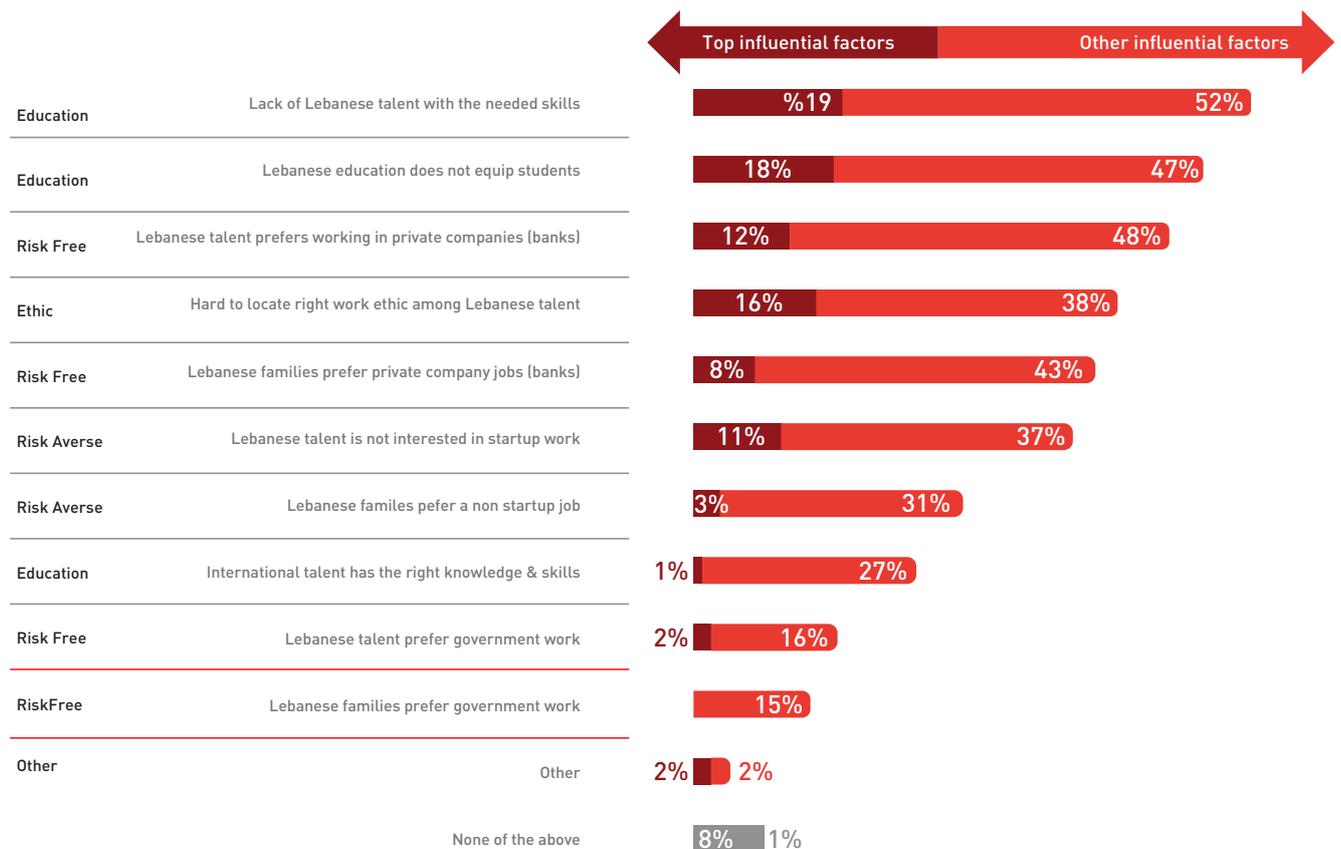
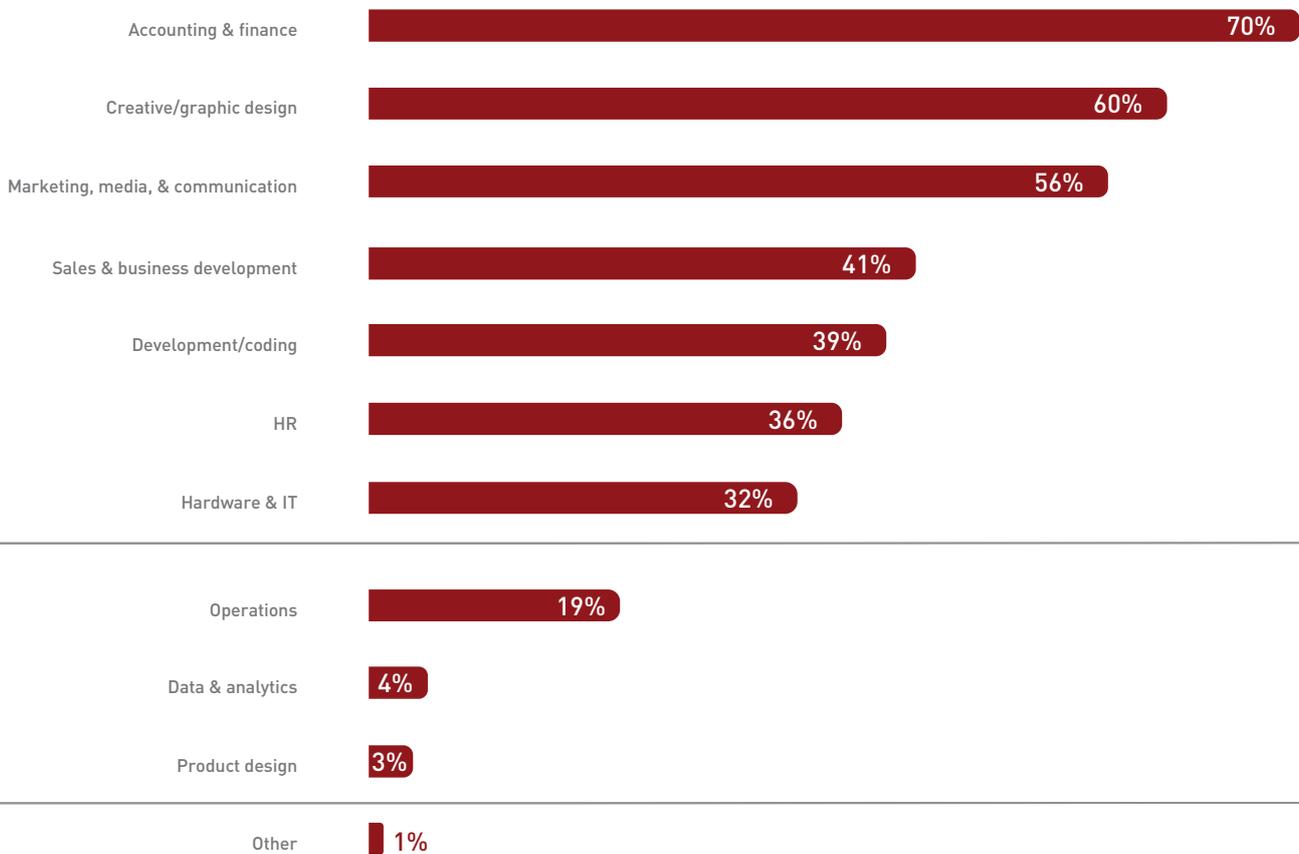


FIGURE 8. AVAILABILITY OF SKILL SETS

It seems that general business skills, including accounting and finance (70%), marketing media and communication (56%), and sales and business development (41%), are readily available in the market. 60% of surveyed startups find graphic design skills easily accessible, emphasizing the creative nature of Lebanese talent. However, another interesting finding is that development and coding skills (39%) are easily available. On the other hand, the largest gap is in technical skills, in which only a small proportion of entrepreneurs say they can locate data and analytics skills (4%) and product design (3%). This connects back to Figure 7 and to the necessity for upskilling talent and preparing them for the digital economy through technical training centers / program and certifications. Operations, although displaying a skill gap of 19%, is an opportunity to support businesses in their growth strategies.

Easily accessible skill sets



ROUNDTABLE FINDINGS. ACCESS TO TALENT AND TECH SKILLS

On one hand, the roundtable results differ from the quantitative findings specifically when it comes to the availability of tech talent. On the other hand, the roundtable findings correlate positively with the survey results by delving into the cultural aspects related to attracting talent. Below is a comprehensive roundtable analysis of accessing talent and their tech capabilities.

■ PROS

FOREIGN TALENT There is an opportunity to attract foreign talent since Europe is struggling.

■ CONS

GLOBAL TALENT Several factors detract from attracting global talent such as:

- 1) Low salaries (risk premium)
- 2) Visa issues for foreign talent (tax structure/tax treaties)
- 3) Not enough benefits to attract foreign talent.

■ CONS

TECH TALENT Low supply and high demand for digital / tech talent. The entrepreneurial ecosystem is fighting over digital and tech talent. Talent is lagging in the fields of UI/UX, AI, digital marketing, app development, etc.

TECHNOLOGY Companies do not have deep technology (R&D / cutting-edge proprietary technology).

TALENT FOR EQUITY Experienced talent for equity is more difficult to find.

GROWTH EXPERIENCE There is a lack of experience in scalability and growth hacking.

LOCAL TALENT Local talent is tough to attract, mainly because

- 1) Local talent are unaware of startup jobs and
- 2) Startup culture of not wanting to give equity to key team members.

HYPE Problems arise when entrepreneurs are attracted by the money and not by solving a problem and creating value.

EGO Issues related to ego prevent many entrepreneurs from enrolling in early stage programs.

CULTURAL BARRIERS There is a general perception of entrepreneurship as being low in stability, thus

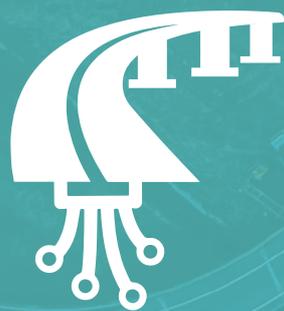
- 1) Working in a startup is not considered as "sexy/prestigious" as working in an established corporation and
- 2) A cultural barrier is families' negative perceptions toward entrepreneurship.

ARABIC FOCUS Challenges in capturing a bigger Arabic audience due to low prioritization in developing Arabic language platforms.

UNIVERSITIES Universities are difficult to engage with the ecosystem. Although university research is very good but due to high levels of bureaucracy, engagement remains stalled.

PRACTICAL LEARNING Low access to experiential learning. The need for more practical education, specifically skills for business build up at universities.

EDUCATION There is a basic requirement to introduce coding in schools and make it part of the curriculum. There is lack of entrepreneurship oriented education and extracurricular programs at the university level. Generally the Lebanese educational curriculum needs an overhaul.



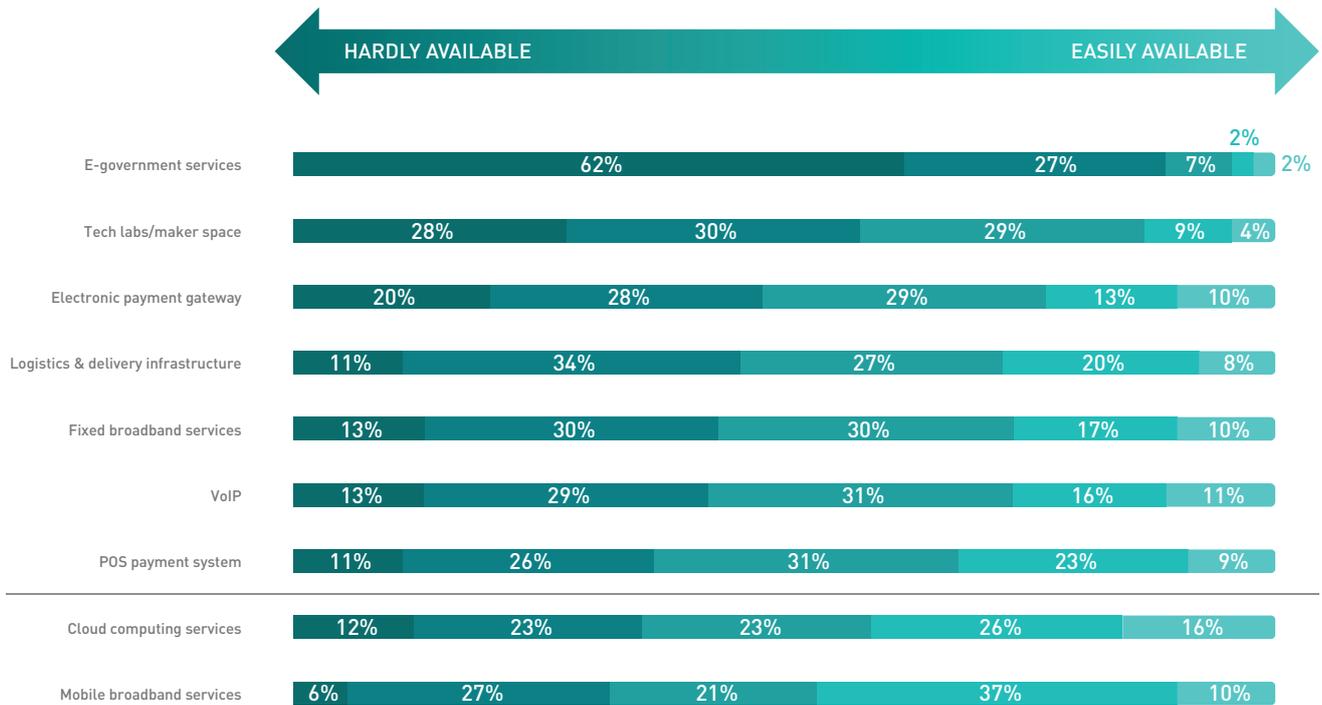
ACCESS TO INFRASTRUCTURE

FIGURE 9. INFRASTRUCTURE REQUIRED BY TECH STARTUPS

The highest infrastructural gap by far presents itself in the lack of e-government services (example e-company registration services) that 89% of surveyed startups mention as a challenge. The top infrastructural gaps influencing e-commerce and e-business operations are electronic payment gateways (48%) and logistics and delivery infrastructure (45%). Other infrastructural hindrances are the shortage of makerspaces and tech labs (58%).

On a positive note, the survey results reveal that connectivity does not rank high as an infrastructural obstacle; mobile broadband services (47%) and fixed broadband services (27%) are readily available.

Availability of infrastructure



ROUNDTABLE FINDINGS. INFRASTRUCTURE SUPPORT

Roundtable findings mirror the survey results when it comes to infrastructure related to e-commerce and e-business. The below roundtable conclusions add another dimension to the survey results.

■ CONS

FINANCIAL INFRASTRUCTURE Strict financial regulations do not permit for non banking entities to come up with credit solutions, such as payment gateways, e-wallets, etc.

FREE ZONES Lack of free zones is costing Lebanon opportunities in e-commerce, thus the establishment of free zones especially in customs is a prerequisite.

PRODUCT BARRIERS When it comes to hardware; manufacturing, supply chain, and logistics are the key challenges.

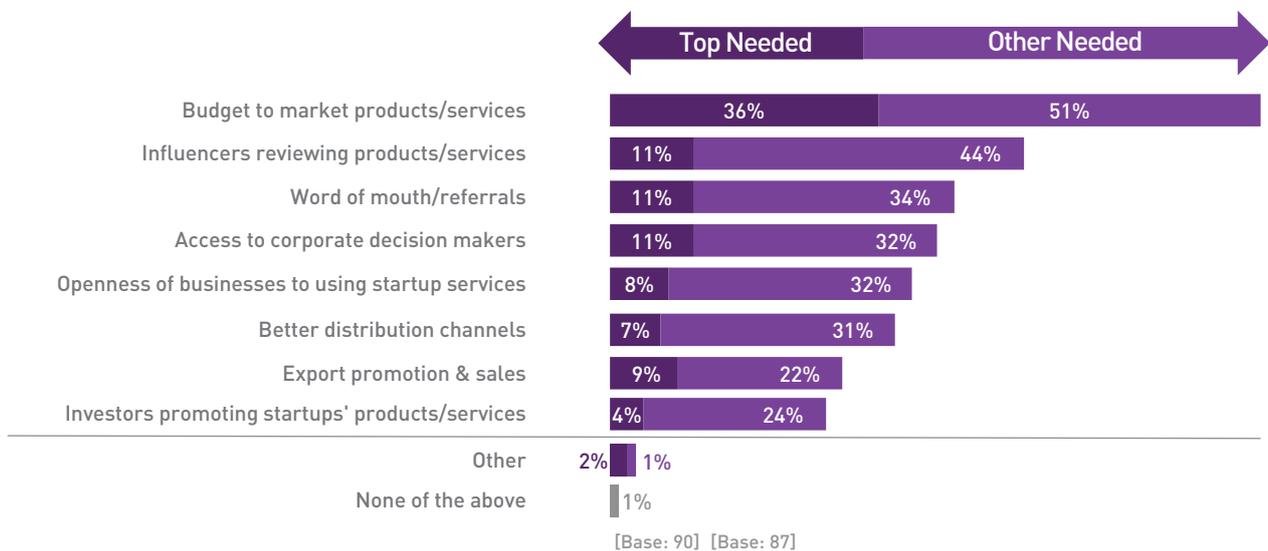
ICT Low Internet speeds.



ACCESS TO MARKETS

FIGURE 10. SUPPORT NEEDED TO ATTRACT BUSINESS

When asked about support services needed to attract business, marketing assistance ranked top of the list – specifically budgets for marketing (87%), influencer reviews (55%), and referrals (45%). Access to corporate decision-makers (42%) and openness of businesses to working with startups (40%) come second, indicating an opportunity for matching services that support startups to connect with their corporate customers and help bridge the cultural gap between the two.



ROUNDTABLE FINDINGS. ACCESSING CUSTOMERS

The roundtable findings reveal that networking, such as accessing corporate decision-makers, is an obstacle faced within the ecosystem. However, the roundtable taps further by looking at scalability, growth hacking, and speed to market. The below outlines the roundtable discussion regarding gaps vis-à-vis accessing markets.

PROS

DIASPORA NETWORK There is a great Lebanese network that can open up doors to clients.

RESEARCH Good research is available but it is not being leveraged or commercialized. The research is not being connected to the ecosystem.

CONS

MOTIVATING DIASPORA The Lebanese diaspora network needs to be further activated, where the diaspora realize the value of their involvement.

R&D There is lack of R&D and specifically applied research. Currently R&D is disconnected from the market and from consumers.

CONS

ACCESS TO MARKETS Startups require growth hackers and support in accessing global markets, this is specifically

- 1) B2C startups where digital talent is lagging and
- 2) B2B startups where the challenges include setting up abroad to attract global customers.

SCALABILITY Companies require significant growth capital to scale and expand globally.

SPEED TO MARKET Regional and local sales and product development is very slow and hinders innovation. Speed to market is very slow for tech products.

PRODUCT TESTING How testable are products in the Lebanese market? For many countries, Lebanon does not reflect the target market/audience.

CORPORATE ENGAGEMENT There is not enough engagement of the "older players" i.e. the traditional sectors and corporates, reasons include:

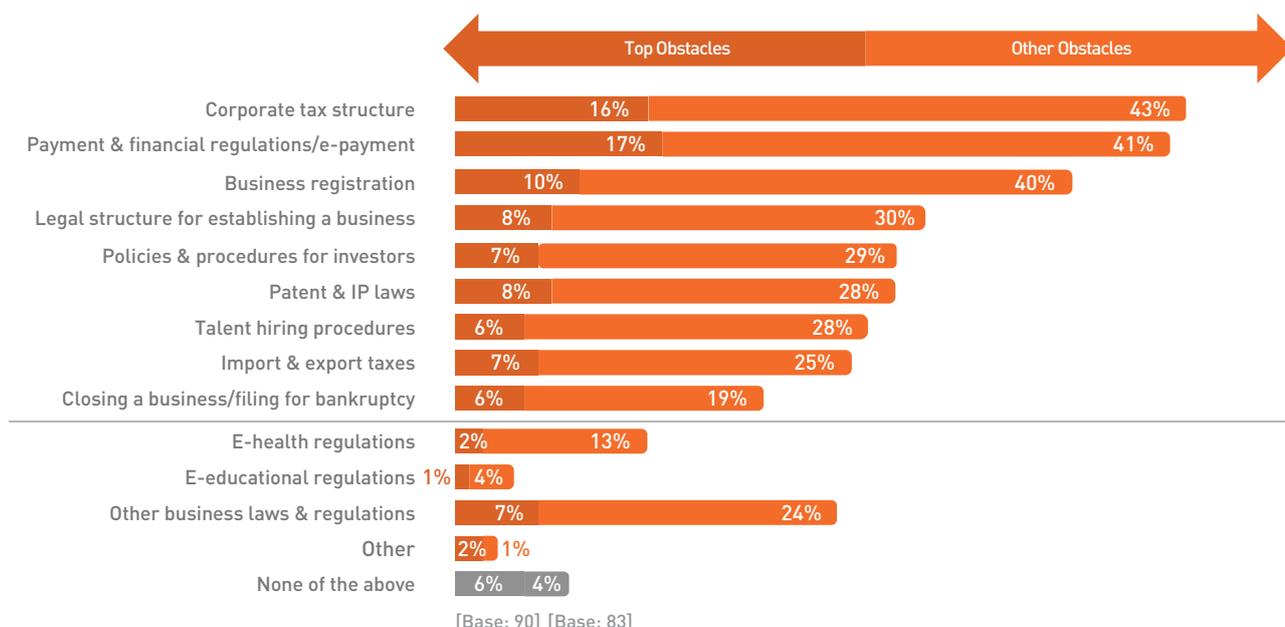
- 1) Lack of engagement because the ecosystem does not approach them;
- 2) Lack of interest from the traditional sectors themselves;
- 3) Lack of understanding and appreciation of working with startups.



REGULATORY FRAMEWORK

FIGURE 11. REGULATORY BARRIERS

Three main themes emerge when analyzing regulatory and policy obstacles. The first theme revolves around taxation. 59% of respondents believe that the biggest obstacle they face is the corporate tax structure, while other tax impediments include import and export tariffs (32%). The second main regulatory obstacle startups face are financial and e-payment policies (58%). This is in line with the previous findings about infrastructural challenges in Figure 9. The third main regulatory hurdle concerns the establishment of businesses. Business registration (50%), legal structures for establishing a business (38%), and policies and procedures for investors (36%) are identified as areas of business impediment.



ROUNDTABLE FINDINGS. REGULATIONS AND POLICIES

The roundtable conclusions are reflective of the regulatory hindrances faced by the surveyed entrepreneurs, especially policies tied to the establishment of businesses and financial regulations. The below elaborates further on the roundtable's qualitative findings

■ CONS

REGULATION Challenges faced by startups include the need to remove the necessity for three founders and the distribution of shares to the board of directors.

LIABILITY The kafala system and personal liability is an issue, where the current kafala system is not sustainable, especially if Lebanon is to be marketed as a regional hub.

JUDICIAL SYSTEM Shareholder agreements are not enforceable by law or recognized by judges. Judges need training in and awareness of the new code of commerce.

CONVERTIBLE DEBT & DEFERRED EQUITY Lebanese holding companies are unable to extend a convertible note (or deferred equity) if they do not own 20% of it.

BANKRUPTCY LAWS Unclear bankruptcy and closing down regulations.

REGISTRATION High registration and start up fees = \$20K plus auditor fees plus lawyer fees = approximately \$50K to open a company.

FINANCIAL REGULATIONS Endurance of financial restrictions such as:

- 1) No entity other than banks can store money;
- 2) The aggregation of financial accounts is forbidden; whereas the fintech revolution materialized due to account pooling abilities with financial aggregators such as Stripe, Square, etc. This is key for fintech deployment;
- 3) The need for e-signature and updated payment regulations.

CONCLUSIONS

Ever since the introduction of Circular 331 in 2013, the Lebanese digital startup scene has witnessed an influx of capital, a surge in the number of entrepreneurs, and thriving ecosystem support system. This research report provides an overview of the gaps and strengths of the ecosystem and the challenges faced by Lebanese tech startups.

The report's key findings include:

OVERALL ECOSYSTEM STRENGTHS AND WEAKNESSES

- The two biggest impediments that tech startups face are difficulties in navigating the regulatory framework (64%) and in accessing local talent (64%).
- Entrepreneurs identified the strengths of the ecosystem to be startup support services (32%) and access to markets / customers (21%).

ACCESS TO FUNDING

- Reflecting an exceedingly early-stage ecosystem, roughly more than half of the survey participants raised between one to two rounds of funding (57%).
- 9% of surveyed entrepreneurs raised three rounds of funding or more.
- A third of all surveyed startups did not receive any round of funding (34%).
- 65% of startups raised seed amounts, highlighting the fact that a large portion of deals in Lebanon remain in their early stages
- Lebanese tech startups are heavily dependent on non-equity funding, where 68% use their personal savings.
- When it comes to equity funding, over a quarter of startups surveyed have raised funding from angel networks (26%).
- The two biggest factors influencing entrepreneurs' source of funding is ecosystem support (such as such as mentorship, workspace, legal advice, etc.) and the avoidance of risk.
- 80% of startups claim that the need for ecosystem support motivated them to apply to accelerator programs.
- Under half of startups agree that less risk was their motivator to use their personal savings (39%) and to contact angel networks (39%).
- Access to markets is a big motivator for choosing venture capital funding (56%).
- Increased control over a startup drives tech startups to consider angel networks (43%).

ECOSYSTEM SUPPORT SERVICES

- Nearly half of the respondents mention that they have received ecosystem support such as mentorship in marketing and pitching (46%) and access to workspaces (40%)
- Support services that display the largest gaps are talent support (a 27% need gap), go-to-market strategy (a 23% need gap), and networking (a 22% need gap).
- Under half of startups have received some form of financing for their businesses (41%).

ACCESS TO TALENT AND TECH SKILLS

- Nearly three quarters of all surveyed startups believe that there is a lack of Lebanese talent with the right experience and skill sets needed (71%).
- 65% of startups claim that the Lebanese education system does not equip young graduates/entry level employees with the knowledge and skills required.
- The main competition for startup talent is the private sector (60%) and not government work (only 18%).
- Family pressure seems to be a key factor for talent choosing private sector jobs (51%).
- General business skills, including accounting and finance (70%), marketing media and communication (56%), and sales and business development (41%), are readily available.
- The largest gap is in technical skills, where only a small proportion of entrepreneurs say they can locate data and analytics skills (4%) and product design (3%).

ACCESS TO INFRASTRUCTURE

- The highest infrastructural gap is lack of e-government services (89%).
- Other infrastructural gaps include electronic payment gateways (48%) and logistics and

- delivery infrastructure (45%).
- The survey results reveal that connectivity does not rank high as an infrastructural obstacle such as mobile broadband services (47%) and fixed broadband services (27%).

ACCESS TO MARKETS

- The top support services needed to attract business is marketing assistance, specifically budgets for marketing (87%), influencer reviews (55%), and referrals (45%).
- Access to corporate decision-makers (42%) and openness of businesses to working with startups (40%) are second in demand for accessing markets.

REGULATORY FRAMEWORK

- 59% of respondents believe that the biggest obstacle they face is the corporate tax structure.
- The second regulatory obstacle startups face is financial and e-payment policies (58%).
- The third regulatory impediment is business establishment policies such as business registration (50%), legal structures for establishing a business (38%), and policies and procedures for investors (36%).

Appendix

CONTRIBUTORS

Omar Christidis - Ideation

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Mira Breish - Design

SURVEY

1. **Please indicate your age range?**

- Under 20 years
- 21 - 30 years
- 31 - 40 years
- 41 + years

2. **Please indicate your gender**

- Male
- Female

3. **Please indicate your country of residence.**

- Lebanon
- Egypt
- Jordan
- UAE
- Other

4. **Please indicate what type of institution you currently work in.**

- Technology startup with a working product or service (a technology-based company in its early stages of operation)
- Technology startup at the idea stage (a technology-based company in its early stages of operation)
- Non technology related startup (a company in its early stages of operation without any main technology aspect)
- Currently not working
- Othe

5. **Please indicate your position in the startup that you work in.**

- Founder (An entrepreneur who started the business)
- Co-founder (An entrepreneur who started the business with another person)
- Partner (A person who works with a startup and owns equity)
- Employee (An employee in a startup and does not own equity)

6. **Based on your own personal experience, can you please rate the ease of securing funding for technology startups in Lebanon? 1 is very hard and 5 is very easy.**

7. **What is the total amount of funding that your startup has received or raised since it started operations? Make sure to include any sources of funding such as personal savings, family and friends, bank, etc.**

- It has not received any funding
- Below \$50k
- \$50k - \$500K
- \$500k - \$5M
- \$5M +

8. **How many rounds of funding has your startup received since it started operations? Make sure to include all rounds from any sources of funding such as personal savings, family and friends, bank, etc.**
- It has not received any round of funding
 - One round of funding
 - Two rounds of funding
 - Three rounds of funding or more
9. **Thinking back to your history of raising funds for your startup, please indicate all sources used for funding. Make sure to include any sources of funding such as family and friends, bank, etc.**
- Personal savings (include money from family and friends)
 - Public and non-governmental funding/grants
 - Money won at a competition
 - Took a loan from a bank
 - Crowdfunded by raising money contributed by a large number of people
 - Angel network (an affluent individual who provides capital for a start-up in exchange for equity)
 - Venture capital (funding provided by firms or funds in exchange for equity)
 - Accelerators (a company that supports startups and entrepreneurs and provides capital in exchange for equity)
 - Other
 - I have never raised any funds for my startup
 - None of the above
10. **Can you please choose the statements that best explain why you chose those sources of funding? Choose all statements that apply.**
- Less risky
 - Overall cost of financing is lower than other sources of funding
 - Increased control over startup
 - Preference for long-term source of finance (example bank loans)
 - No to low repayment obligations with no interest payments
 - Lack of access to certain types of investors
 - Banks refused business loan
 - Seeking support such as mentorship, workspace, legal advice, etc.
 - Seeking access to customers and markets
 - None of the above
 - Other
11. **Can you please rate the level of ease for tech startups in receiving support from early stage support programs (such as accelerators and incubators)? 1 is very hard to receive support and 5 is very easy to receive support.**
12. **Looking at the below, please choose the type of support services your technology startup has ever received?**
- Workspace
 - Technical assistance (like coding training)
 - Product development and prototyping
 - Legal advice and accounting advice
 - Proof of concept advice / Product market fit advice
 - Go-to-market strategy (a plan on how to reach customers and achieve competitive advantage) / business model advice
 - Connections (or networking) with potential corporate clients
 - Equity financing (money in exchange for shares) and non-equity financing (like a loan or grant)
 - Mentorship and training on business skills (like marketing and pitching)
 - Identifying and hiring talent / talent development
 - None of the above
 - Other

13. **Looking at the below, please choose the type of support services your technology startup would need?**
- Work space
 - Technical assistance (like coding training)
 - Product development and prototyping
 - Legal advice and accounting advice
 - Proof of concept advice / Product market fit advice
 - Go-to-market strategy (a plan on how to reach customers and achieve competitive advantage) / business model advice
 - Connections (or networking) with potential corporate clients
 - Equity financing (money in exchange for shares) and Non-equity financing (like a loan or grant)
 - Mentorship and training on business skills (like marketing and pitching)
 - Identifying and hiring talent / talent development
 - None of the above
 - Other
14. **Can you please rate the ease to find local talent needed for your startup? 1 is very hard and 5 is very easy**
15. **Kindly look at the below statements and choose the one top statement that applies.**
- In general, local talent in Lebanon prefer to work government jobs.
 - In general, local talent in Lebanon prefer to work with big private companies such as banks.
 - In general, local talent in Lebanon is not interested in working in startups.
 - In general, Lebanese families prefer their children work in government jobs.
 - In general, Lebanese families prefer their children work with big private companies such as banks.
 - In general, Lebanese families prefer their children do not work in startups.
 - There is a lack of Lebanese talent with the right experience/skill sets needed.
 - It is hard to find Lebanese talent with the right work ethic (come to work on time, deliver assignments on time, etc.)
 - In general, the Lebanese education system does not equip young graduates/entry level employees with the knowledge and skills needed.
 - In general, it is easier to find the right knowledge and skills with international talent.
 - None of the above
 - Other
16. **Kindly look at the below statements and choose all statements that apply.**
- In general, local talent in Lebanon prefer to work government jobs.
 - In general, local talent in Lebanon prefer to work with big private companies such as banks.
 - In general, local talent in Lebanon is not interested in working in startups.
 - In general, Lebanese families prefer their children work in government jobs.
 - In general, Lebanese families prefer their children work with big private companies such as banks.
 - In general, Lebanese families prefer their children do not work in startups.
 - There is a lack of Lebanese talent with the right experience/skill sets needed.
 - It is hard to find Lebanese talent with the right work ethic (come to work on time, deliver assignments on time, etc.)
 - In general, the Lebanese education system does not equip young graduates/entry level employees with the knowledge and skills needed.
 - In general, it is easier to find the right knowledge and skills with international talent.
 - None of the above
 - Other
17. **Based on your experience and knowledge, can you please check what type of skill set is easily available in Lebanon?**
- Development/ coding
 - Hardware and IT
 - Data and analytics
 - Marketing, media, and communication

- Sales and business development
- HR
- Accounting and finance
- Operations
- Creative / graphic design
- Product design
- None of the above
- Other

18. **At an overall level, can you please rate the ease of availability of the infrastructure needed for your startup? 1 is very hard and 5 is very easy**

19. **Can you please rate the availability of the type of infrastructure needed for your startup? 1 is not available at all and 5 is easily available**

- Mobile broadband services (data services such as 2G/3G/4G)
- Fixed broadband services (ADSL-based broadband services or internet connection delivered through a provider's network of cables)
- Electronic payment gateway
- POS payment system
- Logistics and delivery infrastructure
- E-government services (example E-company registration services)
- Cloud computing services
- VoIP
- Technology labs / maker space (a place where startups can experiment, create, and test technology ideas)
- None of the above
- Other

20. **Can you please rate the ease of attracting customers or businesses to use the product/service of your startup? 1 is very hard and 5 is very easy**

21. **What is the one top factor that would make it easier for your startup to attract customers or businesses to use your product/service? Please choose one option from the below.**

- Having better distribution channels.
- Having the budget to mass market products/services.
- Word of mouth - customer referrals of your products/services.
- Having influencers review your products/services.
- Having access to corporate decision makers.
- Export promotion and sales programs.
- Having your investors promote your products/services.
- Openness of customers/businesses in using products/services produced by startups.
- None of the above
- Other

22. **What other factors that would make it easier for your startup to attract customers or businesses to use your product/service?**

- Having better distribution channels.
- Having the budget to mass market products/services.
- Word of mouth - customer referrals of your products/services.
- Having influencers review your products/services.
- Having access to corporate decision makers.
- Export promotion and sales programs.
- Having your investors promote your products/services.
- Openness of customers/businesses in using products/services produced by startups.
- None of the above
- Other

23. **Can you please rate the level of operational ease government policies and regulations provide your startup? 1 is very hard and 5 is very easy**
24. **When it comes to government policies and regulations, what is the top hindrance for your startup? Please choose one.**
- The process of business registration.
 - The legal structure needed for establishing a business.
 - The process of closing down a business or filing for bankruptcy.
 - Procedures related to hiring talent (Lebanese talent, international talent, etc.)
 - Policies and procedures for investors.
 - Corporate tax structure (including staff taxes, product/service taxes, etc.)
 - Patent laws and intellectual property laws.
 - Import taxes and export taxes.
 - Payment and financial regulations including e-payment.
 - E-health regulations.
 - E-educational regulations.
 - Other business laws and regulations.
 - None of the above
 - Other
25. **What other government policies and regulations have been hindrances for your startup?**
- The process of business registration.
 - The legal structure needed for establishing a business.
 - The process of closing down a business or filing for bankruptcy.
 - Procedures related to hiring talent (Lebanese talent, international talent, etc.)
 - Policies and procedures for investors.
 - Corporate tax structure (including staff taxes, product/service taxes, etc.)
 - Patent laws and intellectual property laws.
 - Import taxes and export taxes.
 - Payment and financial regulations including e-payment.
 - E-health regulations.
 - E-educational regulations.
 - Other business laws and regulations.
 - None of the above
 - Other



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