

Current Trends and Challenges of Startups & Ecosystem in Lebanon: SWOT Analysis

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Abstract: During the previous year Lebanon has witnessed a rapid development in knowledge and tech economies. The latest developments and challenges in the ecosystems have increased the rank of Lebanon to be a tech gate way of the Middle East. This paper highlights the current state of startups in Lebanon and analyzes the secondary data of previous literature to develop a SWOT analysis matrix. Entrepreneurs and startup innovators can benefit from this study to understand the strengths, weakness, opportunities, and threats of the Lebanese ecosystem. Future studies can extend the literature and illustrate by providing more evidence in term of startups' funding, knowledge economy, and tech infrastructure.

Index Terms: Startups, Ecosystems, Accelerator, Circular 331, Lebanon, ICT.

I. INTRODUCTION

The intention is to make an effective startup for an entrepreneurial ecosystem exemplify creditably in Lebanon. Many acceleration programs such as the UK Lebanon Tech Hub, AltCity Bootcamp, Speed@BDD, Smart ESA, and the expansion in infrastructure have changed Beirut to a new tech hub that attracts talents and entrepreneurs in the MENA. Beirut Digital District (BDD) has turned into the hub of the ecosystem, and Banque du Liban (BDL)'s Circular 331 and other sponsors such as World Bank-Kafalat and USAID-IM Capital have resulted in multiple VC and matching funds for Lebanese entrepreneurs. New seed accelerators to support Circular 331, have changed the momentum significantly during the last three years. Circular 331 provides abundant credits to assist startups grow and get funded. Undoubtedly, Beirut's ecosystem has developed significantly during the last five years. (The startup state | Executive Magazine, 2017) With an educated population, relatively liberal culture and large banking system, Beirut appeared well-placed to become a hub for internet startups in the region. Tony Fadell, the Lebanese-American co-creator of the iPod, said that there was at least one glaring problem, the internet in Lebanon is abysmally dysfunctional. Due to government mismanagement, the country has some of the slowest download speeds in the world. (Startups in the Arab world - Set them free, 2017)

UK Lebanon Tech Hub report has recommended the map on how to change Lebanon to be the tech gateway of the Middle East. It highlights Lebanon's huge growth potential in

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FinTech, well-being (i.e. healthcare, fitness, and food lifestyle products), and Digital Visualization, and plots an arrangement to create 25,000 ICT jobs. Interestingly, the report, which compares Lebanon to Estonia, Latvia, and, Northern Ireland, in terms of the time taken to transform a knowledge economy into a more developed, innovation-harnessing and exporting economy, has identified three distinct flagship sectors for growth. These are FinTech, well-being, and creative visualization in retail. The three flagship sectors are to be enabled by three core technological capabilities: Software as a service (SAAS), Internet of Things (IoT), and Digital Technologies. (Salhab Mohamad, 2016).

According to the World Bank report in 2016, Beirut ecosystem requires more improvement, as the entire ecosystem has not matured and is in the nascent stages. The differences between nascent and matured stages, nascent is entitled by shortage in funding programs, lack of talent, and few inexperienced mentors. The skills are appropriate, but the supporting tech-infrastructure needs more improvement (Riwa and Mikheal Marwa, 2017). WHERE IS THE MATURED STAGE AS YOU STATED YOU WERE GOING TO GIVE A DIFFERENCE? The paper conveys an outline of a portion of the most recent advancements and difficulties to the Lebanese tech-ecosystem, and the future development model within the sector.

II. METHODOLOGY

In order to understand the current status of startups in Lebanon, the paper examines the effects of ecosystems and supporting infrastructure on Startups sustainability in Lebanon. The study endeavors to describe and to analyze the current status of startups in Lebanon by reporting the strengths, weakness, opportunities, and threats to develop a SWOT analysis model providing a background for a further SWOT matrix development. The research examines the secondary data, and the previous reports of local and international research of associations. The data provides a literature review of startups ecosystem as well as the supporting infrastructure and programs in Lebanon. A conclusion draws on the base of strength, weakness, opportunities, and threats that are derived from the analysis

III. STARTUPS ECOSYSTEM OVERVIEW

Startup ecosystem is the integration between people, organizations, and their environment.

The collaboration between people, and organizations assumes an essential role in innovating new ideas and supporting new startups. Ecosystems environment boosts startups components: resources, skills, and essential funding to create new ideas and to change to startups. A significant ecosystem will ensure the sustainability of startup, and failure of startups will release talents to establish or join a new startup.

Lu and Sexton (2009) discuss the establishment and advancement of a cutting-edge startup, learning and sharing is the base of any startup. New businesses are subsidized by the learning trade developments, this, Lu and Sexton has exhibited five primary standards of knowledge impacts on new companies: “ technical know-how, brought as knowledge from the founders; product idea; personal contacts, in which the networks are both sources of knowledge and sources of legitimacy for the firm; physical resources; and customer orders”.(Centobelli, Cerchione and Esposito, 2017)

The industry experts from startup incubators and accelerators frequently view disruptive potential in the problem a startup tries to solve, and in a team, which is capable of indicating their roadmap of actions rather than promises. David Cohen Founder, CEO, Techstars (Garcia et al., 2015) says that they believe in progress because entrepreneurs take action, rather than just talk about concepts. Saul Klein, a Partner with Index Ventures, generalized the common opinion on this issue as the following list of disruptive criteria: market sustainability, solid leadership, and a product that essentially changes the customer experience within that sector. Nevertheless, these assessment criteria can be referred to all startups.(Shipilova Natalia, 2015)

The problem of potentially disruptive startups following this concept of scarcity is that their disruptive potential is not always recognized in their early stages and occasionally requires several years to disrupt the market as happened with Airbnb. Disruption is like finding a black swan metaphorically compared to in Beyond Strategy by Michael M. Andersen. If it were that easy, everyone would be able to do it. (Shipilova Natalia, 2015)

Startups play a key role in innovation processes (Colombo & Piva 2008; Davila et al. 2003; Mustar et al. 2008). According to the well-known definition by Steve Blank (Blank 2010) a startup is an organization, a transitory association intended to look for a repeatable and versatile model. Through the startup phase, new ideas are brought to the market and transformed in economically sustainable enterprises. New firms are artefacts for transforming entrepreneurial judgment into profit (Spender 2014). Existing research indicates that forming relationships with external partners is a priority for the success of startups (Teece 2010; Pangarkar & Wu 2012; Kask & Linton 2013). Due to their diminutives, new companies experience the ill effects of the nonattendance of unmistakable and elusive assets (Wymer and Regan 2005). The absence of budgetary and HR ruins the advancement of new development forms. Adopting Open Innovation (OI) practices is a necessity for startups in order to overcome both the liability of newness and the liability of smallness (Bogers 2011). From a scientific

point of view, the startup phenomenon and open innovation are closely related. (Spender et al., 2017)

Bengoa (2011) considers the significance of connections and trust as facilitators of learning partaking in new startups. An open and trustful mentality empowers new startups to assist learning sharing procedures among colleagues of various cultures. Despite what might be an expected theme of trust, knowledge assurance mentality speaks to an obstacle business support. In the perspective of these premises, the creator shows how trust must fare well, and overlooking this care or mishandling from it speaks to a high danger of both business relationship and profitability. Accordingly, keeping in mind the end goal to make trust, organizations must be resolved to give the ground regarding having openings and open entryways for individuals to meet and collaborate. (Centobelli, Cerchione and Esposito, 2017)

Antlová (2008) investigates how knowledge sharing process with customers is supported by customer relationship management CRM. Through the execution of knowledge methodologies, long haul business objectives and proficient utilizing of data and correspondence innovation of new companies could be effective. (Centobelli, Cerchione and Esposito, 2017).

IV. LEBANON STARTUPS SWOT ANALYSIS

SWOT analysis is a business technique that an organization can perform to any product, service, and market to understand current strength, weakness, opportunities, and threats to draw future strategies. (FME, 2013). It is essential to study the current Lebanese ecosystem environment to understand the knowledge economy, internet infrastructure, and other important components to perform future strategies, and to avoid failure of any startups.

	Positive	Negative
Internal	Strengths	Weaknesses
	<ul style="list-style-type: none"> • Knowledge economy • Academic learning • Global competition 	<ul style="list-style-type: none"> • Gap between academic knowledge and real business word • Slow growth economy • Internet infrastructure • Lack of scalability • Lack of talent • Lack of funding and policies • Absent of data collection & statistics
External	Opportunities	Threats
	<ul style="list-style-type: none"> • International funding programs • Lebanon in the international market 	<ul style="list-style-type: none"> • Technology innovation • Political situation

A. Strength

Knowledge economy: Lebanon has witnessed the growth in the knowledge economy that would increase the number of employees directly related to the sector by 15% and a further 5% increase in the wider economy with spillover effects that would contribute an additional USD 7 billion to Lebanon's GDP by 2025. UK tech report recommends that Lebanon



focus its investments and knowledge production capabilities around the three flagship sectors: FinTech, well-being, and creative visualization in retail. Hence, the report states, will then catapult Lebanon into the Top 10 entrepreneurial countries worldwide and so create 25,000 new jobs by 2025. (Salhab Mohamad, 2016)

Academic learning: The opportunity is promising for R&D transfer from academia to industry as Lebanon is ranked 15 out of 62 countries in the Global Entrepreneurship Monitor 2015 report. The same report also highlights Lebanon as ranked 18 out of 62 in entrepreneurialism post-school. The World Economic Forum's "Global Information Technology Report" ranked Lebanon 14th out of 144 countries for its quality of education and fourth in mathematics and science. (Salhab Mohamad, 2016)

Global competition: The potential of Lebanese entrepreneurship to benefit the country's economy is highlighted by the early success of the UKLTH's accelerator program. The first cycle of the program saw 45 Lebanese companies selected by the UKLTH for support, based on their potential to expand on the global stage. Of these, 15 were chosen a year ago by the UKLTH to base themselves in London, using the UK capital as a base for attracting investment, expanding overseas and tapping into the expertise of institutions such as University College London to help them develop global expansion plans. (Salhab Mohamad, 2016)

B. Weakness

Gap between academic knowledge and real business world: Colleges have forced strict affirmation rules and prerequisites trying to stem the quantities of understudies endeavoring to join their establishments. Universities in MENA are arranged in focal locales of their particular states, e.g. Lebanese colleges are for the most part in Beirut, confining access to populaces in fringe territories (Angel-Urdinola, and Semnali, 2010). Universities in the Middle East and North Africa are basically supported by their individual governments. These administrations apportion deficient assets to finance the exercises of these colleges. A few governments have even diminished financing for advanced education establishments. Exportation of Arab riches to colleges in remote nations of Europe and North America has 13, and additionally concerned this issue of financing. Well off nationals are spending enormous sums for instructing their posterity in the western colleges, while nearby colleges stay under-subsidized and desperate. Decreased government spending on advanced education brings down the expectations for everyday comforts of college's staff and limits their drive to think of progress inventive systems (Sayed, 2006). Most Lebanese colleges remain isolated from their condition and have constrained contact with their encompassing social orders. This tightens their capacity to research and address challenges confronting people and organizations within a society. This partition has prompted the scholarly community being withdrawn from reality and has made a disparity between the interests of the colleges and that of the societal concerns. The educational program in these colleges are significantly philosophical and hypothetical and have a tendency to have disharmony

between their objectives and substance. These colleges must attempt reliable and managed endeavors towards integrating the abilities understudies learn and the requirements and challenges confronting neighborhood organizations. (El-annan, 2012)

Slow growth economy: Across the Middle East in recent years, young men and women have created new products, started new companies and inspired hopeful talk of replicating the startup scenes in America and Europe. These entrepreneurs are a potential advantage to the region's economies, which suffer from slow growth and high unemployment, especially among the young. A disappointment though is that numerous obstacles stand in their way—and that many are put there by governments. No place in the Arab world comes close to Silicon Valley in terms of dynamism. Nevertheless, slowly, progress is being made, say entrepreneurs. (Startups in the Arab world - Set them free, 2017)

Internet infrastructure: Tony Fadell, the Lebanese American co-creator of iPod, says there is at least one problem, the internet in Lebanon is extremely dysfunctional. Due to government mismanagement, the country has some of the slowest download speeds in the world (Startups in the Arab world - Set them free, 2017). Businesses have endured to pay the high internet costs, as example Wamda pays \$200 every month for a service of 18Gb/s download, the weak infrastructure has bad effects on the market opportunities and exceptionally on the entrepreneurs' strategies. Haddad stresses the infrastructure is insufficient, it obliges you to decide to go somewhere else. Hala Fadel, Leap Ventures Partner, says that 20% of her time is spent waiting the internet response which is inadmissible. (Salhab Mohamad, 2016)

Lack of scalability is the greatest challenge of the Lebanese market. Habib Haddad, Wamda CEO, recommends entering the markets allows to make agreements, to break out, "the brain drain is definitely a big issue". Sources limitation, bad infrastructure, and the high investments costs all together have reduced the opportunities of the Lebanese market to attract new entrepreneurs. (The startup state | Executive Magazine, 2017)

Lack of talent: the Lebanese ecosystem needs professional experiences, with the pure investment framework attracting talents is a hard job. For Fadel, attracting professional experts to Beirut is a hard mission. The instable political situations, and governmental paralysis have not encouraged foreign talents to come and work in the Lebanese market. (The startup state | Executive Magazine, 2017)

Lack of funding and policies: successful startups are the sound of sustainability. It not enough to fund local startups, however they require regulations, and strategies to shift them toward globalization. Entering the global competition contributes in creating new jobs, and attracting new entrepreneurs, these will ensure the sustainable development of the Lebanese ecosystem. (Mulas Victor, 2017). Ballout, an entrepreneur, says it is having hardly to get funding at the early stages of the startup, so an entrepreneur must depend on their own saving to fund his startup. The absence of digital trading policies and

regulations obligate the investor to think in areas outside of Lebanon. (The startup state | Executive Magazine, 2017). The need of accelerators is essential to develop the Lebanese ecosystem, preparing the startups to meet investors is an important role of accelerators to ensure the sustainable growth of the startup and to guide them during the starting stage.

Absence of data collection & statistics: data availability and market statistics are another challenge for the Lebanese economy. The absence of data centers and the digital governmental regulation has not encouraged entrepreneurs to select Lebanon as a place to start their business. In the age of cloud computing building data centers is more flexible, however it requires only governmental support and coordination.

C. Opportunities

International funding programs: The potential of Lebanese entrepreneurship to benefit the country's economy is highlighted by the early success of the UKLTH's accelerator program. The first cycle of the program saw 45 Lebanese companies selected by the UKLTH for support, based on their potential to expand on the global stage. Of these, 15 were chosen a year ago by the UKLTH to base themselves in London, using the UK capital as a base for attracting investment, expanding overseas and tapping into the expertise of institutions such as University College London to assist them develop global expansion plans. Figures published today show the impact that UKLTH has already made:

- 138 new jobs have been created by the companies;
- \$7.4m in additional revenue for the companies has been achieved;
- \$4.4m in new funding and additional investment has been secured by the companies;
- 8 international partnerships have been secured, including STARTX Accelerator and Paris&Co

A second cycle of the program will be launched soon with 30 new places available for another wave of entrepreneurs. (Salhab Mohamad, 2016). "Our ecosystem is pivoting and that is thanks to the effort of each and every stakeholder in our respective roles but more specifically thanks to the initiatives of the Central Bank of Lebanon. The UK Lebanon Tech Hub one year on achievements are yours as much as ours. I am confident that whatever value our program gave you, you will give it back to Lebanon exponentially after you make it globally" said Nicolas Sehnaoui, Chairman of the UKLTH, speaking at an event in Beirut to celebrate the one year anniversary of the UKLTH. (Salhab Mohamad, 2016)

Lebanon in the international market: The report also identifies Lebanon's highly educated, skilled and successful diaspora as a key pillar of its resilience as well as a huge source of opportunity going forward as it provides strong access to several key international markets. Eighty-one Lebanese are ranked between the top 500 Arab influencers in the world mostly for the most part packed in UAE, US, and Europe. Lebanon's remittances have grown steadily from USD 2.54 Billion in 2002 to USD 6.92 Billion in 2012 to USD 7.7 billion in 2014. In 2014, Lebanon ranked the 18th largest recipient of remittances globally. As a percentage of

the GDP, remittances amounted to 16.2%, the 13th highest ratio in the world. (Salhab Mohamad, 2016)

D. Threats

Technology innovation: Tech economy has witnessed a rapid growth; Lebanon economy has to ride the wave. We cannot ignore the disruptive technology and especially the internet of things, big data, and cloud services. Expanding economy opportunities is the responsibility of government toward citizens, and technology is an essential element as capital and human resources.

Political situation: At the point when requested to express the security challenges at national level, 95% of respondents recognized political flimsiness as a wellspring of weakness for the nation. Other real worries for uncertainty identified with physical frailty (96%), the war in Syria (95%), the risk of Syrian displaced people (91%) and Israel (88%). Absence of security, fear monger acts, fundamental living needs, joblessness and danger of civil wars were additionally recognized in the NI-CO survey as difficulties to safety and security. (Wannis, 2014)

V. CONCLUSION

In conclusion, the study shows that the knowledge economy in Lebanon is developing; education systems, universities and institutes are feasible, but they are not able to support the real market requirements. The gap between theoretical and practical knowledge is huge, and it requires numerous programs to solve the problems. Lebanon needs a real research and development hub that can be a host for startups, hatcheries and entrepreneurial activities, close by multinationals, midsize organizations, universities, and students. It would be a leader in research, and consultation. R&D hub would offer data center and free access to databases, and technical support for new ideas.

Lebanon has to follow the Asian countries strategies like Korea in building its tech economy. Koreans copied the technology, programs, and licenses until they reached to a point to develop their own technology platforms. This commences by investing and improving the Lebanese tech infrastructure, and particularly the internet infrastructure.

Lebanon requires incubators and accelerators to develop an entrepreneurial ecosystem. The Lebanese government has taken the first step through BDL program Circular 331. "We believe that this is one of the sectors upon which Lebanon's [economic] future will depend, along with the financial sector and the oil and gas sector," BDL head Riad Salameh, the head of BDL, said during the launch of UK Lebanon Tech Hub phase 2. Accelerators would attract talent around the world to return to Lebanon to find companies and create jobs.

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