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Building a Society of Trust:  
Innovation and the Future of Youth Employment in Jordan

Pierre Cativiela  
Williams College

Project Advisor: H.E. Yusuf Mansur  
Geopolitics of the Middle East  
SIT JOR Independent Study Project  
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*Abstract*

The word startup is perhaps an unlikely word that comes to mind when discussing shifting dynamics in the Middle East – this is rapidly changing. In the past two decades, Arab entrepreneurs have emerged from across the region as key players in the paradigm of national economic visions. Within these plans, innovation will become the epicenter for public-private partnerships. Such collaboration will contribute to tackling youth unemployment, the region's most pressing contemporary problem, as well as diversifying local economies. The research delves into the complexities and history of entrepreneurship in Jordan as one of the region's pioneering nations, examining the strengths and weaknesses of the country's infrastructure for its next generation of entrepreneurs through interviews and analysis of secondary sources.

Keywords: Demography, Development Studies, Economics, Education, Entrepreneurship, Innovation, Jobs, Technology, Youth

### *Acknowledgements*

In many ways, my preparation for this project began years ago. I remember learning during middle school about the Arab Spring – the rise of youth, the triumphs of democracy, and its ultimate downfall. I never understood how such a generationally-driven movement could fade practically overnight. Since then, I have become fascinated with the shifting demographics of the Middle East.

For me, Christopher Schroeder's book *Startup Rising* breathed new life into this interest. Written in 2013, Schroeder observed the region's budding entrepreneurial ecosystem becoming a new revolution for Arab youth. As Schroeder hypothesizes, ten, twenty, or even fifty years following the Arab Spring will serve as critical benchmarks if such a transformation occurs.

I now write from the perspective of exactly ten years after his original book was published. The many conversations I have had in Jordan and the persisting problem of youth unemployment shed light on the prophecies of *Startup Rising*. In my research, I hope to confirm the revolution of entrepreneurs looking beyond borders to create global community.

I would like to thank Dr. Raed Al-Tibini and the School for International Training for providing me with resources to conduct a thorough study. I would also like to thank my advisor H.E. Yusuf Mansur who shares the same enthusiasm for the subject as I do. I am grateful for my interview participants that dedicated time and effort to meet with me, as well as my family and friends who spent hours discussing ideas with me. I am elated that this project has finally come to fruition and hope to only build on it in the future.

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## Abbreviations

AI – Artificial intelligence

B2C – Business-to-consumer service

BIG – Business Innovation Growth

COD – Cash on delivery

CSR – Corporate social responsibility

CTF – Capture the Flag

EMV – Economic Modernization Vision

GDP – Gross domestic product

H.E. – His Excellency

ICT – Information and Communications Technology

IP – Intellectual property

IRR – Internal rate of return

ISIL – Islamic State of Iraq and the Levant

MENA – Middle East and North Africa

MNC – Multinational corporation

PSUT – Princess Sumaya University for Technology

R&D – Research and development

SME – Small and medium-sized enterprise

VC – Venture capital

## *Introduction*

The modern Middle East is unparalleled in its complexity. No other region struggles against such religious and cultural strife, terrorism, and geopolitical conflict – all exacerbated by its role as a nexus of global economic and energy interests. For a region whose borders were drawn barely one hundred years ago, division remains its most marked characteristic.

Today, there persists a paradigm of dichotomies: “democracy versus authoritarianism; Islam versus secularism; and economically successful versus stagnant.”<sup>1</sup> These ideological struggles seem to pervade every headline.<sup>2</sup> While perhaps many are true, it is pivotally important to question stories of fragmentation in the Middle East, as they obscure the region’s most pressing foundational problem: youth unemployment.

## *Youth Unemployment*

Youth unemployment in MENA has not fallen below 25% in the past 25 years, compared to the world average of 13% during the same period.<sup>3</sup> To put this in perspective, the World Bank “estimates that the Middle East and North Africa need to create 300m jobs by 2050 if it is to meet the employment needs of its young people.”<sup>4</sup> The coordination and focus required for such a project in the Middle East are perhaps immeasurable. Even natural resource-rich countries like Saudi Arabia cannot avoid this demographic bullet, itself sporting a 40% youth unemployment rate in 2018.<sup>5</sup>

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<sup>1</sup> Navtej Dhillon, “Generation in Waiting: The Unfulfilled Promise of Young People in the Middle East,” *The Imperative of Development: The Wolfensohn Center at Brookings* (2017): 143.

<sup>2</sup> Dhillon, “Generation in Waiting,” 143.

<sup>3</sup> Krishna Kumar, “Crisis Beyond the Crises: MENA’s Youth Unemployment Problem,” *Horizons: Journal of International Relations and Sustainable Development*, no. 16 (2020): 186.

<sup>4</sup> Manuel Langendorf, “DIGITAL STABILITY: HOW TECHNOLOGY CAN EMPOWER FUTURE GENERATIONS IN THE MIDDLE EAST,” European Council on Foreign Relations (2020): 4.

<sup>5</sup> Kumar, “Crisis Beyond the Crises,” 186.

While it is critical to address the chronic ideological and humanitarian struggles of the Middle East, decision-makers cannot ignore the dangers of a generational dimension.<sup>6</sup> Youth underlie many of the region's geopolitical sensitivities: they comprise the majority population within Syrian refugee camps, the driving force behind ISIL armies, and the primary participants of the Arab Spring. Youth unemployment is the only variable that has the ability to exacerbate all existing and future conflicts in the Middle East. It poses a dual threat in common demographic dilemmas such as resource management and food supply while carrying catastrophic geopolitical implications. The Arab Spring represents the quintessential example of such a threat.

### *The Arab Spring*

While the Syrian refugee crisis and the rise of ISIL can be ascribed to factors such as the Syrian Civil War and the Invasion of Iraq, the Arab Spring as a set of intraregional uprisings is more commonly attributed to a shared macroeconomic environment. It began on December 17, 2010 after the self-immolation of a street vendor in Tunisia, the “ultimate act of protest against the seizing of his vegetable stand over his failure to obtain a permit.”<sup>7</sup> The self-immolation succeeded in galvanizing support, engendering a series of pro-democracy uprisings that would define world geopolitics during the 2010s.

In Egypt, Hosni Mubarak was deposed, triggering a period of violent insurgencies that headlined the movement. In Syria, protests escalated to civil war and led to the largest refugee crisis in world history. In Yemen, protestors called for the resignation of President Ali Abdullah Saleh, similarly leading to a civil war that would become the world's largest humanitarian crisis

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<sup>6</sup> Dhillon, “Generation in Waiting,” 143.

<sup>7</sup> Kumar, “Crisis Beyond the Crises,” 187.



in history. Related events occurred in Libya and Bahrain, and protests reached almost every capital across the region.

For many, this unprecedented integration of ideals appeared to be a new guiding light for young Arabs; such coordination seemed to prove the autonomous potential of regional youth. However, falling short dealt a pivotal blow to the prospect of sustaining harmony. The Arab Spring's ties to the horrors which afflict the region today stifle renewing collaboration on such a massive scale. Moreover, the stories of destruction and societal collapse have outlasted the stories of a united vision. Nevertheless, it is necessary to understand the catalysts which allowed millions of young Arabs to unite in spirit, even if for a short period.

It is debated to what extent social media facilitated the coordination of regionwide protests, but its use in disseminating information is unequivocal. For the first time in the Middle East, the “importance of social media was in communicating to the rest of the world what was happening on the ground during uprisings.”<sup>8</sup> Its introduction globalized civic engagement, which, during the initial stages of the Arab Spring, helped revive pan-Arab solidarity as a driving force of the revolution. Many young Arabs realized they were united in facing macro-barriers like unemployment – even well-educated “youth were not immune, and might have been even more dissatisfied by the lack of quality jobs.”<sup>9</sup> With half of the regional population under the age of 20, increased accessibility of information altered the ruling structure of dictatorships; the Internet increased transparency of societal problems. Albeit blurred in the end, protestors possessed a greater understanding of what they were fighting for, adding a generational dimension to existing macro problems. Perhaps neither side was prepared for the power that this

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<sup>8</sup> Heather Brown, “The Role of Social Media in the Arab Uprisings,” Pew Research Center’s Journalism Project, November 28, 2012, <https://www.pewresearch.org/journalism/2012/11/28/role-social-media-arab-uprisings/>.

<sup>9</sup> Kumar, “Crisis Beyond the Crises,” 188.

dimension brought in 2010, but leaders must recognize that that power still exists today. In fact, protests reminiscent of the Arab Spring occurred in 2019, a message that exasperation from unemployment and crisis continues to compound.

### *New Economies*

Unemployment stands at the fulcrum of growth and decay in the modern Middle East and must be discussed within the region's current economic framework. Regional economies, specifically within the Gulf, have proposed ambitious reform plans to address diversification and demographic challenges underscored by unemployment. Qatar, Saudi Arabia, and the United Arab Emirates all identify 2030 as the year by which significant progress must be made to stifle existential threats, namely climate change, energy inflation, and political rivals. Even as some of the fastest growing economies in the world, these countries will push their limits to adapt, such as Saudi Arabia's "Saudization" policy to reduce reliance on foreign workers. In effect, they have placed bets on generating diversified economies through more inclusive and innovative policies.

This economic revolution will vastly differ from previous decades due to the region's increasing proportion of youth. It is clear the "severity of demographic pressures has strained public sector employment and subsidized education systems," once the foundation of Middle Eastern societies.<sup>10</sup> During the 2000s, the "share of public sector jobs in Jordan was as high as 40 percent."<sup>11</sup> Perhaps the "linear model" of working in an occupation or industry for all of one's life has become outdated, and critical thinking is lacking from the skills endowed by a university education. Shifting toward a diverse economy requires a society of diverse thinkers. Many

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<sup>10</sup> Dhillon, "Generation in Waiting," 144.

<sup>11</sup> Kumar, "Crisis Beyond the Crises," 193.

Middle Eastern states realize this, and as a result, incorporate public-private partnerships as a key facet of reform plans to encourage new forms of education and productivity. Economist Mariana Mazzucato emphasizes the potential strength of such partnerships: “In countries that owe their growth to innovation, the state has historically served not as a meddler in the private sector but as a key partner of it – and often a more daring one, willing to take the risks that businesses will not.”<sup>12</sup> Indeed, to effectively diversify Middle Eastern economies will need to innovate in their collaboration between the public and private sectors.

Investment in private sector solutions will enable governments not only to generate new jobs and sectors but also to resolve many internal problems such as data collection. This ability to adapt and experiment economically, with youth unemployment in mind, is the defining project for Arab economies in the 21st century. Remaining proactive in this area constitutes the best deterrence for repeating a youth-led Arab Spring, simultaneously propelling the region toward its grand vision. It is the model strategy illuminating the future of the Middle East.

### *Research Focus*

It is now possible to introduce the focus of the study: entrepreneurship, innovation, and the future of youth employment in Jordan. Jordan today occupies one of the most unique positions in the Middle East. The country maintains a strategic position in the Levant through its borders with Egypt, Iraq, Israel, Palestine, Syria, and Saudi Arabia, yet is absent of both the energy resources and geopolitical conflict which characterize the region. Jordan has additionally taken on an identity of being a refugee state; it is speculated that more than half of Jordan’s

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<sup>12</sup> Mariana Mazzucato, “The Innovative State: Governments Should Make Markets, Not Just Fix Them,” *Foreign Affairs* 94, no. 1 (2015): 61.

population is of Palestinian origin while also being one of the largest absorbers of Iraqi and Syrian refugees. Needless to say, it has developed a strong reputation for inclusivity.

Up to now, this hospitality has proven to be a double-edged sword economically. Jordan benefits from being the third largest recipient of US foreign aid in 2023 (1.72 billion USD) behind Israel (3.3 billion USD) and Afghanistan (4.89 billion USD).<sup>13</sup> However, this investment mostly serves to secure Jordan as a counterbalance among its volatile neighbors, particularly easing refugee migration. Therefore, most aid money does not reach the hands of everyday Jordanians. It leaves Jordan in an interesting position; on the one hand, it relies heavily on foreign aid for economic development. On the other hand, it epitomizes the region's most valuable commodity: stability.

This makes Jordan one of the most compelling cases of economic reform in the Middle East. Its future, outlined in the Economic Modernization Vision, will diverge from plans built around oil funds, instead relying on local talent to build innovation ecosystems. In this way, Jordan has bet the success of the movement on the entrepreneurs themselves. Its aim will be to refine every facet of society contributing to intellectual and human capital, mobilizing its strengths to usher in its ambitious vision despite limited resources.

### *Methodology and Ethics*

The primary objective of this study is to evaluate Jordan's progress in this transformation. Does Jordan possess the innovative capabilities to tackle youth unemployment? Can collaboration of such a massive scale succeed in a region defined by uncertainty in the youth-

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<sup>13</sup> "US Foreign Aid by Country 2023," Worldpopulationreview.com, May 10, 2023, <https://worldpopulationreview.com/country-rankings/us-foreign-aid-by-country>.

government relationship? The research explores Jordan's revolution through the lens of these two questions.

As established, the transformation centers on the entrepreneur; this raises interviews and conversations as research methods to critical importance. The study includes nine interviews spread across some of Jordan's most rapidly changing industries: e-commerce, education, and information and communications technology (ICT). The body of interviews is split between university-age interns and established professionals, investigating the assumption that there is a lack of shared vision between youth and society. Many questions were recycled, and answers were anonymously posed to members of the other group. This established an indirect conversation that proved conducive to productive feedback. The most important takeaway from this structure was that *everyone* desires a better future for Jordan – removing any possible tension from the conversation allowed for better recognition of where these visions align.

The potential overreach of interview questions constitutes the primary ethical consideration of the study. It is clear there remain layers of controversy pervading the subjects of youth and development. For example, the Arab Spring is still one of the most hotly debated and unsettling topics in Middle Eastern politics, certainly not a subject suitable to ask about in interviews. This meant the questioning process necessitated further thought and research. In the end, this contributed to maintaining a respectful relationship between the researcher and participants. A sample version of some interview questions can be found in Appendix B.

The ultimate framework was composed of three categories: problems, solutions, and visions for the future. "Problems" involved questioning the participant about perceived barriers in their industry, often utilizing more vague language. "Solutions" indicated efforts that perhaps were currently recognized or undertaken by the government – initiatives, plans, strategic goals,

etc. Finally, “visions for the future” involved learning about the participant’s aspirations for Jordanian society. These questions inspired more information about personal experience and upbringing, facilitating a greater understanding of what Jordan must provide at an individual level. This framework was highly efficient at creating productive conversations and greatly accentuated the human element of the study. It also helped assess and procure relevant secondary sources for the research.

Recruitment entailed reaching out to participants based on recommendations from the study’s advisor, H.E. Yusuf Mansur. His help facilitated a uniform dispersion of participants across several industries and age ranges. The only exception to this case is the interview with Simma, which was organized by a friend, colleague, and interviewee Hamza Saht.

For all participants involved, the recruitment, interview, and informed consent process was seamless. The interview format and research topic were unanimously agreed upon. Permission has been granted by each participant to use name, position, and organizational affiliation within the study, and all interviews will be used in accordance with ethical guidelines, outlined in an informed consent form (Appendix C) provided to each interviewee. A full list of participants and their affiliations can be found in Appendix A, the foremost goal being to preserve the integrity of the research.

### *Jordan’s Entrepreneurial Revolution*

In 2008, Jordanian founders Samih Toukan and Hussam Khoury made history through the acquisition of their “all-Arabic Internet portal” Maktoob by Yahoo! for 175 million USD.<sup>14</sup> This landmark moment represented the first major exit in the Middle East. In Christopher

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<sup>14</sup> Christopher Schröder, *Startup Rising: The Entrepreneurial Revolution Remaking the Middle East* (New York: St. Martin's Griffin, 2014), 44.

Schroeder's 2013 book *Startup Rising*, Jordanian-Lebanese founder Fadi Ghandour emphasized the implications of such an accomplishment: Toukan "is representative of an up-and-coming middle class that will change things because they are not beholden to anything other than their ambitions."<sup>15</sup> Because there "was no legal jurisdiction [on the Internet] – it was a gray zone without rules. He built it on independent investors and never felt beholden to the government for anything."<sup>16</sup>

In building Maktoob, Toukan and Koury used knowledge of the regional market to guarantee the trust of consumers. Arabic keyboards had yet to be popularized, so "at our own expense, we sent thousands upon thousands of Arabic stickers people could put on English keyboards to help them type in Arabic – people never forgot us for this."<sup>17</sup> This mindset of adamant adaptability characterized the rise of the Middle East's first generation of entrepreneurs, producing localized solutions despite barriers in governance and regulation. It is the same thinking which propelled Emirati ride-sharing company Careem to outcompete and be later acquired by Uber for 3.1 billion USD.<sup>18</sup> The region's largest exit to date, Careem maintained one critical advantage over Uber: allowing customers to pay in cash, based on an insight that not all consumers in the Middle East were primed to trust e-payment systems.<sup>19</sup> This notion of cultural nuance with billion-dollar implications enables those with local knowledge to be the most capable entrepreneurs. Mohammad Amr, an industrial engineering undergraduate at the University of Jordan, asserts that, while "the Middle East is more developed than Western

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<sup>15</sup> Schröder, *Startup Rising*, 44.

<sup>16</sup> Schröder, *Startup Rising*, 44.

<sup>17</sup> Schröder, *Startup Rising*, 47–48.

<sup>18</sup> Langendorf, "DIGITAL STABILITY," 3.

<sup>19</sup> H.E. Marwan Juma, by Pierre Cativiela.

businessmen think, it is often still these cultural particularities which define the region's growth."<sup>20</sup>

Since Maktoob's exit, Jordan has accelerated efforts to reinforce its entrepreneurial capabilities. For H.E. Marwan Juma, former Minister of ICT and co-founder of Jordan's top accelerator, the "unique selling point of Jordan is its manpower."<sup>21</sup> Before "Oasis, as we named it, there was a desert of funding – no one would fund a startup."<sup>22</sup> It then broadened to Oasis500: "if we are able to create 500 companies, then it is a pyramid – how many people went through your boot camps, how many people you have trained, and how many people you have invested in."<sup>23</sup> The task was to build an ecosystem that harnessed Jordanians' natural problem-solving abilities; H.E. Juma and CEO Luma Fawaz rose to the challenge by creating Oasis500. It "came and changed the whole landscape. It changed how people in Jordan view entrepreneurs and risk-taking."<sup>24</sup> Today, twenty-seven of the "MENA top 100 tech entrepreneurs are Jordanian."<sup>25</sup> While a significant proportion of these companies have moved their headquarters to the Gulf (including Maktoob), the thesis of Jordanian talent has evidently become a key driver of Middle Eastern innovation. This is in spite of the many political and inflationary shocks as well. In the past two decades, Jordan has battled the effects of the invasion of Iraq, the global financial crisis, stray bullets of the Arab Spring, the rise of regional terrorism, the Syrian refugee crisis, the COVID-19 pandemic, and now the Russian invasion of Ukraine.<sup>26</sup> Its ability to adapt and

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<sup>20</sup> Mohammad Amr, by Pierre Cativiela.

<sup>21</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>22</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>23</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>24</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>25</sup> The Royal Hashemite Court, *Economic Modernisation Vision*, January 30, 2022, <https://www.jordanvision.jo/img/vision-en.pdf>, 57.

<sup>26</sup> *Economic Modernisation Vision*, 15.



persevere cannot be overstated, and perhaps this is the basis for the resilience and creativity of its entrepreneurs.

Nevertheless, there are several key barriers delaying economic growth in Jordan. The most prominent issue has become a paucity of jobs for Jordan's inflating population. H.E. Mothanna Gharaibeh, former Minister of Digital Economy and Entrepreneurship, characterizes the unique challenges of Jordanian unemployment: "Currently we have 40,000 doctors in Jordan, in the next six years there will become 80,000 – we are going to double the number of doctors. How are they going to find jobs? They are going to end up as Uber drivers, cashiers, and work at supermarkets."<sup>27</sup> From a glance, it appears that Jordan's young population is somehow too skilled for the labor market. "This is especially true for engineers," notes Mohammad Amr, "they all have their eyes set on the Gulf because they cannot find jobs."<sup>28</sup> Marc Andreessen, General Partner of Andreessen Horowitz, foresaw this difficulty in 2013. The "vast numbers of young people coming into adulthood [means] an unprecedented talent pool to create and innovate," however traditional "business models simply cannot absorb them."<sup>29</sup> What results is a scenario of brain drain. While entrepreneurship seems to be a fitting hack for job creation, Jordan currently cannot compete with the funding and regulatory environment of the Gulf. It is easier for many entrepreneurs, especially those working in consumer businesses, to run their businesses in Dubai or Riyadh. This might not always have to be true to such an extent, but things must change if Jordan seeks to retain its talent within its borders.

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<sup>27</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>28</sup> Mohammad Amr, by Pierre Cativiela.

<sup>29</sup> Schröder, *Startup Rising*, 10.

While ambiguous at times in terms of public opinion, the results of the study indicate significant corporate support for Jordanian innovation. H.E. Juma describes the first-hand experience of pitching Oasis:

Our first fund [at Oasis] was launched in 2011, that is only 12 years ago. I did the fundraising for Oasis after His Majesty put in his seed capital. We raised 4 million dollars from banks, Telcos, and old entrepreneurs. When I did the fundraising I told them if you are looking for returns or IRRs or numbers I have no clue. This is an idea. Either look in other countries or do not invest because I cannot guarantee you anything. This could be a huge success or a huge flop. If you *believe* invest. From this pitch Telcos came on board, banks came on board, the companies came on board, and the first generation of entrepreneurs came on board, all because people believed in the country.<sup>30</sup>

Indeed, despite the pessimism of many young graduates, there seems to survive an esoteric faith in the system's ability to change. This was the common denominator across all interviews; every participant recalled a story when they were introduced to the entrepreneurial space. Rabie Jammalieh, Corporate Entrepreneurship Responsibility Project Manager at Orange Jordan, recalls that "I didn't know [about entrepreneurship] when I was in school. At the end of early 2000, we did not have available technology that we have today."<sup>31</sup> H.E. Yusuf Mansur, former Minister of State for Economic Affairs, adds that there was also no official word for entrepreneurship in the Arabic language at this time.<sup>32</sup> Now *riyadee*, the word for entrepreneurship was effectively invented in the late 1990s.<sup>33</sup> Jammalieh remembers his first encounter with startups around this time: "To me, it was another world. I was in a place with six teams working on ideas and challenges to sustain the business. People look to it as a fancy thing, but I believe it is the most difficult thing to do to yourself. I tried to help them as much as I

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<sup>30</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>31</sup> Rabie Jammalieh, by Pierre Cativiela.

<sup>32</sup> H.E. Yusuf Mansur, by Pierre Cativiela.

<sup>33</sup> H.E. Yusuf Mansur, by Pierre Cativiela.

could.”<sup>34</sup> Today, Jammalieh dedicates his work life to building Orange Jordan’s Business Innovation Growth (BIG) program. The initiative acts as a part of Orange’s corporate social responsibility (CSR) strategy, providing Jordanian startups with free incubation, office space, and telecommunications services. “Telecommunications companies need to come up with new areas of business,” Jammalieh says, “today the leader of the whole sector is technology and innovation, so what is happening today will come back to serve us and the community at a later stage.”<sup>35</sup>

BIG works exclusively with growth-stage startups, defined as companies with ready or minimum viable product (MVP). This is crucial information because close to nine of ten startups in Jordan fail during the growth stage according to Jammalieh.<sup>36</sup> Also brought up by Mohammad Amr, “there is practically no growth stage in Jordan.”<sup>37</sup> Funds like Oasis500 are mostly active in the pre-seed or seed stage, which severely restricts the resources of Jordanian startups outside of the ideation phase. This is especially pertinent in terms of debt and equity financing. H.E. Juma notes “If you want to borrow from a bank in Jordan it will request collateral, and often they want it in cash. They only lend to successful or mature businesses. There is no project-based lending.”<sup>38</sup> On the other hand, there is a lack of late-stage equity financing. Series A, Series B, and private equity “care about processes, scale, governance, and technology to be much more sophisticated to invest.”<sup>39</sup> Thus, many “funds come here and find there are not enough opportunities to invest.”<sup>40</sup>

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<sup>34</sup> Rabie Jammalieh, by Pierre Cativiela.

<sup>35</sup> Rabie Jammalieh, by Pierre Cativiela.

<sup>36</sup> Rabie Jammalieh, by Pierre Cativiela.

<sup>37</sup> Mohammad Amr, by Pierre Cativiela.

<sup>38</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>39</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>40</sup> H.E. Marwan Juma, by Pierre Cativiela.

The funding barrier is a key driver of Jordanian startups to the Gulf, where projects seem to boast infinite capital, but hand-in-hand with funding is market size. Market size is one of the determining factors of any emerging economy. A large accessible consumer base is one of the easiest ways to scale a startup in a region defined by untapped demand, especially with the emergence of the digital economy. Unfortunately, as a population of 11 million, Jordan struggles to sustain locally focused B2C businesses. H.E. Gharaibeh goes so far as to say “Unless you can export your good or service, I don’t think you should start a business [in Jordan] unless you are a supermarket owner or dry cleaner in the neighborhood. If you want to be a real entrepreneur, you need to take the risk of getting out there.”<sup>41</sup> When this regional outlook always includes the Gulf, it makes entrepreneurs question the rationale for staying in Jordan. The Gulf clearly “has much better governance for [economic growth] because they can afford McKinsey, BCG, PwC, everybody,” says H.E. Gharaibeh, “they have much firmer execution of their visions and it is something we need to learn from.”<sup>42</sup>

But this story is not complete. It is important to remember that, despite perhaps unideal conditions, Jordan maintains a pedigree of successful startup founders. Moreover, “SMEs are the drivers of economies, not large companies. Economies in this part of the world are all SMEs.”<sup>43</sup> This means that even if a GDP boost from a unicorn startup were to elude in the short term, maintaining focus on long-term sustainable development will yield greater dividends. This message of creating perhaps not gradual but thorough change is echoed throughout interviews and secondary sources. “I have a son and he will likely go to the US,” H.E. Gharaibeh says sentimentally, “my whole mission in life is to make sure he is back here by the time I die. And I

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<sup>41</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>42</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>43</sup> H.E. Marwan Juma, by Pierre Cativiela.

need to create opportunities for kids like him to come home.”<sup>44</sup> Similarly, Fadi Ghandour looks back fondly on the early days of Aramex: “We barely had decent post offices in the region. No one in government really knew what the logistics business was, so I knew I could start building by moving fast and not having to worry about all the bureaucratic stuff until I started getting successful. I knew I could do this.”<sup>45</sup> Years later, his business became the “first local company in the region to go public in the NASDAQ in 1997.”<sup>46</sup>

These are the figures who head Jordan’s entrepreneurial community – thoroughly experienced in working with MNCs and governments across the world. They struggled through an ecosystem lacking precedent leaders, but in doing so, have become leaders themselves. They are resources for future Jordanians in a way that surpasses the American winner-takes-all notion of innovation. Successful alumni like H.E. Juma have put generous amounts of time and money into improving Jordan’s startup community, and will continue to do so until they can guarantee the groundwork for many generations ahead. The key attribute of these figures is that they care more about trying than failing, the model of adamant adaptability which spawned Maktoob. In a meta sort of way, it seems to be the entrepreneurial spirit guiding both ends of Jordan’s entrepreneurial scene. This level of commitment is what it will take to make Jordan a future hub of growth.

### *Economic Modernization Vision*

The Economic Modernization Vision (EMV) represents Jordan’s defining project for the 21st century. An overhaul of Jordan’s economic infrastructure, the EMV will require an “overall

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<sup>44</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>45</sup> Schröder, *Startup Rising*, 42.

<sup>46</sup> Schröder, *Startup Rising*, 43.

investment of about 41 billion JD, with the majority driven by the private investments (72%) coming from both domestic and foreign investments and public-private partnerships.”<sup>47</sup> The plan joins the likes of the Abu Dhabi Economic Vision, the Qatar National Vision, and the Saudi Vision in proposing sweeping economic reform largely by 2030.

The EMV’s structure is split into strategic pillars: a “pillar focused on accelerating sustainable and inclusive growth by unleashing Jordan’s full economic potential, while the second is centered on society, targeting the improvement of quality of life of all Jordanians to secure a better future for all.”<sup>48</sup> It is reassuring that King Abdullah recognizes the importance of addressing economic and social barriers side by side. Many of Jordan’s greatest problems, particularly unemployment, warrant such complex solutions. H.E. Gharaibeh emphasizes this fixation on progress: “It’s all about future services and how to build industries over technology.”<sup>49</sup> When H.E. Gharaibeh served as Minister of Digital Economy and Entrepreneurship, he “created a program with \$200 million to [begin growing] this space called Youth, Technology, and Jobs (YTJ).”<sup>50</sup> As the youngest ever Jordanian minister during his time in office, he led the imperative for providing “subsidies, upscaling programs, grants, and educational programs for public school students.”<sup>51</sup> In many ways, his role in the ministry served as a precedent in Jordan’s vision for the EMV.

In May 2019, the Jordanian government renamed the Ministry of Information and Communications Technology to the Ministry of Digital Economy and Entrepreneurship. H.E. Gharabieh was its first minister and sought “to catalyze digitally based growth and

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<sup>47</sup> *Economic Modernisation Vision*, 88.

<sup>48</sup> *Economic Modernisation Vision*, 25.

<sup>49</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>50</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>51</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

entrepreneurial activity.”<sup>52</sup> However, the renaming was not a sign that the government wanted to ease away from the ICT industry. In fact, it was quite the opposite. “ICT is not a sector,” H.E. Gharaibeh explains, “it is an enabler for all the other sectors.”<sup>53</sup> It will take on an indispensable role among the industries blanketed as “Digital Economy and Entrepreneurship,” industries which will in turn scale the ICT industry. “The biggest sector now calculated [for the EMV] is Telecom, potentially over one billion USD.”<sup>54</sup>

Jordan possesses a unique strength in ICT, one which has the potential to outcompete regional neighbors. Despite “a challenging economic environment, the ICT sector continues to stand as one of Jordan’s greatest strengths, witnessing growth of 6% during the pandemic.”<sup>55</sup> H.E. Gharaibeh considers Jordanian ICT to provide “Eastern European quality at close to India costs.”<sup>56</sup> The country has several advantages which differentiate it from competitors: “Our English is better. Our time difference is closer to the US. Jordan is a trusted partner in the US. We protect IP rights. We have signed all the agreements and all the protections” unlike Saudi Arabia and China, and graduate a surplus of skilled engineers at all times.<sup>57</sup> His list was complete with a story about Cisco Systems during the pandemic. During COVID, “Cisco’s center in Jordan grew by 215 engineers in two weeks under lockdown working from home.”<sup>58</sup> These workers were all “hired from their home, 60% of which were females, and they have the highest customer satisfaction globally among Cisco Centers because people are committed and

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<sup>52</sup> Bay Area Council Economic Institute, *Assessing Jordan’s Potential as a Middle East Business and ICT Base* (2022): 5.

<sup>53</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>54</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>55</sup> Bay Area, *Jordan’s Potential*, 5.

<sup>56</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>57</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>58</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

they appreciate the opportunity.”<sup>59</sup> H.E. Gharaibeh’s vision for ICT carries the infectious sentiment of the EMV. Indeed, it at first seems grandiose, but the vision becomes much clearer when hearing the background and activities of the doers. H.E. Gharaibeh, during what appears to be the prime of his career, spent the last month traveling in the US advocating for Jordan to be the next semiconductor partner of American industry. Manufacturing hardly exists within Jordan currently, let alone semiconductor manufacturing. When asked about precedents for the idea, he first responded, “I will build it.”<sup>60</sup> This grit and creativity, even through language, make him an instantly recognizable entrepreneur. In terms of research, it illuminates the EMV with a light of hope.

In terms of unemployment, the EMV hopes to “accommodate [over one] million young females and males in the labor market.”<sup>61</sup> As envisioned by H.E. Gharaibeh, this will at times require building entire new industries, some from scratch. Manufacturing represents one of the EMV’s economic growth priorities. The report itself stipulates the shortcomings of the industry. The “sector suffers from a limited local market, high production costs, especially energy, shortage of skilled workers, weak linkages with research development, lack of proper transport and distribution to deliver natural gas to its facilities and weak export support.”<sup>62</sup> Additionally, according to H.E. Juma, the industry requires greater sophistication. If “you want to manufacture plastic pots, that does not work. It needs something bigger. As long as you increase the sophistication and complexity of the product, energy becomes a less important component, and then we will become competitive.”<sup>63</sup> Petra Engineering represents a critical precedent, having

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<sup>59</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>60</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>61</sup> *Economic Modernisation Vision*, 27.

<sup>62</sup> *Economic Modernisation Vision*, 40.

<sup>63</sup> H.E. Marwan Juma, by Pierre Cativiela.



received “billions of dollars from the US to manufacture HVAC systems.”<sup>64</sup> It has “2000 employees and exports to the US, NASA is cooled by a Jordanian company,” H.E. Gharaibeh comments.

Finally, it is necessary to examine where entrepreneurship falls in the EMV. The EMV relies on the overhaul of all layers in the Jordan economy – infrastructure, data, energy, digital economy, etc. Perhaps expectedly, one of the centers of this transformation will be entrepreneurship. The plan aptly summarizes the area’s importance: “New business formation will range from micro and home-based businesses via traditional small businesses in services and manufacturing to startups in the technology and creative industries. This will promote a larger middle class and reduce income inequalities.”<sup>65</sup> This language cements the EMV’s vision, at least in part, to work from the ground up. As discussed, SMEs constitute the economic foundation for emerging economies. This makes it especially reassuring to see plans for small businesses to “eventually grow into medium and large operations with significant job creation and economic contributions.”<sup>66</sup>

In recent years, Jordan has begun preparing for its second generation of entrepreneurs. The EMV consolidates this preparation, almost as if it is a call to the first wave of entrepreneurs to return home. It is a compelling invitation, but many recognize Jordan still sits at an average place in terms of governance. Jordan ranks 61 out of 180 countries in Transparency International’s 2023 World Corruption Index, just slightly better than Saudi Arabia and slightly worse than China.<sup>67</sup> It also has only recently begun to clarify the definition of a startup. The

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<sup>64</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>65</sup> *Economic Modernisation Vision*, 99.

<sup>66</sup> *Economic Modernisation Vision*, 99.

<sup>67</sup> Transparency International, “2022 Corruption Perceptions Index,” 2022, <https://www.transparency.org/en/cpi/2022>.

“2018 by-law on venture capital (VC) companies does not define tech or innovative startups, but refers to high-risk and promising high-growth SMEs as investment aim of VC companies in Jordan.”<sup>68</sup> This carries unfavorable implications for funding rounds, as it is extremely difficult to quantify the size of a company. Perhaps this is best illustrated by the EMV which presents small businesses to “eventually grow into medium and large operations.”<sup>69</sup> Without proper definitions of small, medium, and large “operations,” internal processes will become increasingly complicated. In fact, Rabie Jammalieh from Orange Jordan notes that today it is harder to close a business in Jordan than open one. “A good friend of mine is an entrepreneur that has a business he tried to shut down,” Jammalieh says, “there are so many reasons trying to shut down a company is more difficult than trying to open one. You can register a company in half an hour.”<sup>70</sup>

Thus, Jordan must continue its focus on refining both public and private affairs to give the EMV its best chance of success. Nuance will always exist to some extent in governance and regulation, but it is critical for Jordan to adapt like its neighbors to ensure efficacy and integrity within its system.

### *Education*

Ensuring the success of massive structural reform like the EMV necessitates an analysis of Jordan’s education system; it is clear the skills taught in universities do not meet the demands

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<sup>68</sup> Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ), *Jordan’s Startup Economy: Assessing the economic contribution and potential of tech and tech-enabled startups* (2019): 20.

<sup>69</sup> *Economic Modernisation Vision*, 99.

<sup>70</sup> Rabie Jammalieh, by Pierre Cativiela.

of Jordan’s job market today. Appropriate reform would allow the government to spend more efficiently on education, as well as address the broadening gap of unemployed skilled workers – two of the country’s biggest obstacles to economic growth. This is by no means easy to solve, but education should optimally be treated with the same urgency as other prioritized initiatives within the EMV.

H.E. Yusuf Mansur, former Minister of State for Economic Affairs, takes a strong stance on the decay of public education in Jordan:

Intergenerationally – what’s the way out of poverty? – education. We lack intergenerational mobility. I come from a low-income family, I moved myself up through education. We cannot do that anymore. Conservatives will tell you education is not a public good – I agree it is not a public good but a country that does not teach its children will not be developed. Education is a result of democratization and an inclusive society, not an exclusive one.<sup>71</sup>

Inflating class sizes have drastically reduced the quality of Jordanian education, perhaps, as H.E. Mansur suggests, on the level of exclusion. The University of Jordan was “built to [originally] accommodate a maximum of 15,000 students.”<sup>72</sup> In 2023, the university maintains a student body of 55,000 students.<sup>73</sup> According to a report by the Bay Area Council Economic Institute, “in 2020-21, 332,413 students were enrolled [in Jordanian universities], 85% at the undergraduate level.”<sup>74</sup> This number grossly overstretches the capabilities of Jordan’s 31 public and private universities. At a glance, it is good that more Jordanians will become college educated. However, it is the shared sacrifice of quality education that has the potential to inflict detrimental consequences on Jordanian society. How can the government expect to integrate youth into the EMV vision if it fails to provide the most basic tenet of social mobility? It also

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<sup>71</sup> H.E. Yusuf Mansur, by Pierre Cativiela.

<sup>72</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>73</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>74</sup> Bay Area, *Jordan’s Potential*, 1.

creates an immense barrier to the EMV's diversification plans. "They are graduating unemployment," H.E. Juma criticizes, "you have to specialize, you cannot just keep doing IT" and other generalized studies.<sup>75</sup> In this system, Jordanians will receive a mediocre education compared to those studying with greater resources. This is underscored by an absence of "linkage between academia and industry."<sup>76</sup>

When H.E. Gharaibeh was asked about the ways public education informed his professional career, he responded that, while growing his mind, "education did not give [him] real tools."<sup>77</sup> Instead, he recalled working an internship on an assembly line in Egypt as his most pivotal professional experience. Those "six months when I went to work in a factory in Egypt, that was the best experience of my life."<sup>78</sup> H.E. Gharaibeh sat "on the assembly line creating phones in 2002, inserting small pieces to build the phone at the end. In that experience I learned if I am lazy for a second, the complete product will be destroyed."<sup>79</sup> When asked how he obtained the job, he replied "The founder of our university faculty who put the endowment for it, his son owns the factory and he created an internship program."<sup>80</sup> It turns out that H.E. Gharaibeh was not "even one of eleven selected for that program, I sent the CEO an email and he answered and hired me because of my message," adding that "he is now my partner, we have a couple of companies."<sup>81</sup> H.E. Gharaibeh's tenacity shines through once again with this story; but it also must be observed that even with these subtle connections between academia and industry, entrepreneurs like him carry the ability to seek out such opportunities. H.E. Juma notes that

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<sup>75</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>76</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>77</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>78</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>79</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>80</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

<sup>81</sup> H.E. Mothanna Gharaibeh, by Pierre Cativiela.

Jordan faces a severe deficiency of these internship programs – internships “today are you go to a company for three weeks and they sign the paper that you worked with them.”<sup>82</sup> That is “not an internship, an internship is where you add value and the company benefits you in some way.”<sup>83</sup>

H.E. Juma repeatedly emphasizes the value of productivity and efficient spending in education. At Princess Sumaya University for Science and Technology (PSUT), where H.E. Juma is a member of the Board of Trustees, education is “superior to other schools because 98% graduates of Sumaya within 3 months are employed in their domains.”<sup>84</sup> PSUT charges “more per hour for credit hours, so we are able to pay better professors, so we attract more talent and better people. We do not compromise quality and there is a strong alumni network.”<sup>85</sup> This is in contrast to smaller universities, perhaps outside Amman, which “end up employing local people in that neighborhood to solve unemployment problems, so they have low ratios of faculty to admin – this loses money, and they cannot attract future talent.”<sup>86</sup> Furthermore, “in the Arab world GDP spend on R&D is less than 0.1% compared to Israel’s 5%”; inefficient spending on faculty and administration squeezes this budget to an even greater extent. Hamza Saht, a network information security engineering undergraduate at PSUT, was shocked by the level of equipment at a university in Rochester, New York when he traveled to compete in a cyber security competition. They had “dedicated labs to work on hardware, technology, forensics – in my university we have one lab, nothing specifically equipped with what we need. Most things I am taught in engineering are taught by people who do not know how to use a computer.”<sup>87</sup> As H.E. Juma notes in PSUT’s strategic vision, this will improve with time – yet the shortcomings of

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<sup>82</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>83</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>84</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>85</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>86</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>87</sup> Hamza Saht, by Pierre Cativiela.

Jordanian education, even at PSUT, are evident through the experience of students. Saht describes how his friend “was summoned by his professor to download Python, she was supposed to create a Python assignment. How are you qualified to teach or read my assignment about Python if you do not know how to install Python?”<sup>88</sup>

Nevertheless, Saht believes the future of education must still be centered around public institutions. In addition to his education’s faults, he has also greatly benefited from PSUT’s resources: One day he chose to join PSUT’s Cyber Security Club to supplement his major study. “Day by day I asked more questions,” Saht says, “I asked them anything about the subject, and that is how my involvement in competitions began.”<sup>89</sup> Today, as Vice-President of the Cyber Security Club, Saht competes internationally in cyber security competitions such as capture the flag (CTF) events, where participants attack vulnerable websites to win points. Many external bodies such as Orange Jordan have become involved in organizing such competitions. “We have a very long relationship with Princess Sumaya,” Rabie Jammalieh describes, “A couple of months ago one [competition] was at the University of Jordan targeting students to come up with innovative ideas and we gave prizes to the top three.”<sup>90</sup>

This hands-on, public-private collaboration constitutes the most durable connection between educational and professional life found in the study. In fact, it is exactly how Saht came to work as an intern at Jordanian e-commerce startup Simma: “We were on LinkedIn and I saw that Hamza’s team won a competition,” says Simma founder, CEO, and PSUT graduate Samer Tarazi, “I reached out to every single person I found tagged in that post. We did interviews for three but found massive potential in Hamza.”<sup>91</sup> Inadvertently echoing H.E. Juma’s language, “I

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<sup>88</sup> Hamza Saht, by Pierre Cativiela.

<sup>89</sup> Hamza Saht, by Pierre Cativiela.

<sup>90</sup> Rabie Jammalieh, by Pierre Cativiela.

<sup>91</sup> Samer Tarazi, by Pierre Cativiela.

highly believe we are adding a lot of value to him and he is to us and that might be the trigger for someone who has massive potential like Hamza to be an entrepreneur.”<sup>92</sup> Saht mentions that “Most of [his] friends are really worried about finding a job.”<sup>93</sup> The career center at PSUT exists, “but I do not know a single student who has gotten a job through there.”<sup>94</sup> It is encouraging that the Internet enabled a PSUT alumnus to see Saht’s potential, but as Saht notes, the private sector “is not a long-term solution.”<sup>95</sup>

Nonetheless, the private sector has been efficient in establishing short-term solutions. “I learned everything for the club online,” Saht says, “mostly through gamified websites where you try to attack fake websites to get you into cybersecurity – then I got into receiving certifications online.”<sup>96</sup> H.E. Juma suggests adding more “requirements to graduation to take [these] industry certifications.”<sup>97</sup> Diversifying sources of education will only benefit students. “I need to ask every student before they graduate to replace some credit hours that they receive in the university by using global platforms for knowledge,” concludes H.E. Juma.<sup>98</sup> Farouq Omary, History and Global Politics Teacher at the Jubilee School, suggests this transformation is taking place in lower education as well. He says his students “are not as interested in subjects that were important in the last fifty years like the Palestinian Conflict.”<sup>99</sup> They have already received complete “knowledge and news from the Internet.”<sup>100</sup> These diverse sources of information will encourage students to think critically. According to H.E. Mansur, this is potentially the biggest

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<sup>92</sup> Samer Tarazi, by Pierre Cativiela.

<sup>93</sup> Hamza Saht, by Pierre Cativiela.

<sup>94</sup> Hamza Saht, by Pierre Cativiela.

<sup>95</sup> Hamza Saht, by Pierre Cativiela.

<sup>96</sup> Hamza Saht, by Pierre Cativiela.

<sup>97</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>98</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>99</sup> Farouq Omary, by Pierre Cativiela.

<sup>100</sup> Farouq Omary, by Pierre Cativiela.

missing piece of the Jordanian education system. “Writing is not taught,” H.E. Mansur says, “There are economists and engineers here who cannot write half a page. It denigrates your work.”<sup>101</sup> Investing in critical thinking, at least partially through the private sector, represents a key component of the larger solution.

### *Replit*

In the typical entrepreneurial adage that local problems attract local problem solvers, Jordan’s educational status quo could not have attracted a bigger mind. “I am sure you have heard about Amjad Masad who was behind Replit,” H.E. Juma says leaning in, “It is the story of a Jordanian who graduated out of Princess Sumaya University in 2010 and became an entrepreneur.”<sup>102</sup> He “worked for Amazon, did his own thing, and now he is up there competing with Microsoft and partnering with Google.”<sup>103</sup> According to Y-Combinator, “Replit (YC W18) has [recently] raised \$97.4 million in a Series B extension, valuing the company at \$1.16 billion, for its collaborative cloud developer platform.”<sup>104</sup> The company is the “fastest-growing software development platform globally – it is home to over 22 million developers, from 200+ countries.”<sup>105</sup> The platform itself employs AI to “enables developers to quickly set up any development environment,” a key feature being its easy integration into classrooms and educational settings.<sup>106</sup>

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<sup>101</sup> H.E. Yusuf Mansur, by Pierre Cativiela.

<sup>102</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>103</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>104</sup> Jaiveer Shekhawat, “Cloud Developer Platform Replit Valued at \$1.16 BLN after Latest Funding Round,” Reuters, April 25, 2023, <https://www.reuters.com/technology/cloud-developer-platform-replit-valued-116-bln-after-latest-funding-round-2023-04-25/>.

<sup>105</sup> Shekhawat, “Replit.”

<sup>106</sup> Shekhawat, “Replit.”



H.E. Juma describes the story of Masad’s arrival to PSUT: “We have a group chat for the Board of Trustees at Sumaya and are all very proud of him.”<sup>107</sup> But “Amjad was a rebel at PSUT, he did not like the status quo, and he challenged the university that he could hack into the systems.”<sup>108</sup> He swiftly accomplished this goal, exposing the system's weaknesses to the university. “If PSUT was your traditional university,” H.E. emphasizes, “the university would have had him thrown out, but instead they took him on board and embraced him.”<sup>109</sup> He soon “became the coder of the year for the university.”<sup>110</sup> And Masad’s extracurricular activities? – still listed on his LinkedIn today: “Ranked first in the first local programming competition, participated in the IEEE Extreme programming competition, participated in the ACM ICPC, helped secure the university's online registration system.”<sup>111</sup> H.E. Juma finishes his story with a Steve Jobs quote. “As Jobs says, only the crazy change the world, who by the way has a Syrian parent.”<sup>112</sup>

### *Simma and the Strength of Trust*

In many ways, Samer Tarazi’s e-commerce startup Simma represents the cornerstone of the study’s research. The business grew out of Tarazi’s experience working at miscellaneous Jordanian startups and venture builders, including Oasis500. Like Hamza Saht, Tarazi graduated from PSUT although completing a degree in Electronic Engineering. “As soon as I stepped foot in the workforce,” Tarazi begins, “I figured out that this was not the thing for me. It was a mix of

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<sup>107</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>108</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>109</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>110</sup> H.E. Marwan Juma, by Pierre Cativiela.

<sup>111</sup> “Profile of Amjad Masad: Founder of Replit.” n.d. <https://www.linkedin.com/in/amjadmasad/>.

<sup>112</sup> H.E. Marwan Juma, by Pierre Cativiela.

inexperience and naivety, but I got interested in the idea of building businesses.”<sup>113</sup> The call of entrepreneurship led him down the arduous path faced by his Jordanian predecessors, awakening the same adamant adaptability that characterized Jordan’s first generation of innovators.

In his previous startup, Tarazi recalls launching a ChatBot for food orders in Uganda. The application “was completely new so it had so many features, bells and whistles, images, scrollables, and other unnecessary things.”<sup>114</sup> In the market, “it was doing alright, but one day our servers went down for 48 hours.”<sup>115</sup> Tarazi knew he could not risk being offline for 72 hours, so he created “replies on Messenger because it was where we were selling and started talking to every single consumer faking that I was a bot.”<sup>116</sup> Shockingly, when he skimmed “down the process to the simplest and stupidest form,” sales skyrocketed.<sup>117</sup> It turns out, many Ugandans “turn off their data at night because they are scared that their GPRS bundles for the Internet would be consumed and increase their bill or eat up their credit.”<sup>118</sup> This means often times images and other extraneous features would not even load. Skimming the GUI down to bare essentials allowed the application to be accessed through Messenger Lite, increasing sales by over “4000 orders every single month.”<sup>119</sup>

Through Eila, this previous startup targeting the Ugandan market, Tarazi learned the lesson which contributed to the successes of Maktoob and Careem: the advantage of a localized understanding. But for Tarazi, this initiation was at first discouraging. Eila ended up dying

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<sup>113</sup> Samer Tarazi, by Pierre Cativiela.

<sup>114</sup> Samer Tarazi, by Pierre Cativiela.

<sup>115</sup> Samer Tarazi, by Pierre Cativiela.

<sup>116</sup> Samer Tarazi, by Pierre Cativiela.

<sup>117</sup> Samer Tarazi, by Pierre Cativiela.

<sup>118</sup> Samer Tarazi, by Pierre Cativiela.

<sup>119</sup> Samer Tarazi, by Pierre Cativiela.

“because of COVID, I felt like I could not do it anymore.”<sup>120</sup> “It was a run hit run sort of business,” he remarks, “They would order the burgers, which would be terrible in real life, and they would never come back again.”<sup>121</sup> Though he stayed in the space, he retreated to an administrative role within Jordan’s entrepreneurial ecosystem working at a venture builder. That was until he discovered a promising opportunity in an even more difficult market than Uganda.

Tarazi was working at the venture builder when one day a bank approached him saying “they wanted to do digital payments in Iraq.”<sup>122</sup> It felt “interesting but I was stunned by the failure of startups” in such a market.<sup>123</sup> Still, “the chairman of a bank sat in front of me saying that Iraq is a massive country and that there is a population of 42 million comparable to Saudi.”<sup>124</sup> So, he decided to run an experiment. He spoke to a colleague “doing drop shipping in Iraq for consumers that had no valid digital payment method to order from international sites and ship to Iraq.”<sup>125</sup> With this knowledge, Tarazi set up an “Instagram and Facebook page simply allowing end consumers in Iraq to shop from a Chinese website” with a marketing budget of 90 USD.<sup>126</sup> According to Tarazi, it “ended up becoming 5 days of 9 am to 5 am literally speaking to hundreds and hundreds of Iraqi women wanting to order.”<sup>127</sup> During “the course of six weeks of operation we sold 130,000 USD worth of merchandise spending only 350 USD on marketing.”<sup>128</sup> At that moment, “I felt like I wanted to run this project and be responsible for it.”<sup>129</sup>

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<sup>120</sup> Samer Tarazi, by Pierre Cativiela.

<sup>121</sup> Samer Tarazi, by Pierre Cativiela.

<sup>122</sup> Samer Tarazi, by Pierre Cativiela.

<sup>123</sup> Samer Tarazi, by Pierre Cativiela.

<sup>124</sup> Samer Tarazi, by Pierre Cativiela.

<sup>125</sup> Samer Tarazi, by Pierre Cativiela.

<sup>126</sup> Samer Tarazi, by Pierre Cativiela.

<sup>127</sup> Samer Tarazi, by Pierre Cativiela.

<sup>128</sup> Samer Tarazi, by Pierre Cativiela.

<sup>129</sup> Samer Tarazi, by Pierre Cativiela.

In the interview, project manager Zeina Abu Ghazaleh introduces Simma’s carefully curated team. Now a fully formed business live for 13 months, Simma operates as an e-commerce platform navigating the complexities of the Iraqi consumer market. Such a demanding business requires a highly productive team culture. “It looks like a lot of talk,” Abu Ghazaleh says, but it is a critical “three-phase process. First, everyone must be decent, it is as clear as that, second, we share the same goals, three, we are all professionals.”<sup>130</sup> From the beginning, Tarazi organized “a weekly update for the entire team. It does not matter if you are a manager or not, everyone will come and sit for an hour every Thursday.”<sup>131</sup> Everything must be transparent – “We see what marketing got in terms of reach and clicks of conversion, product tells us about the number of registration, and for financials, we literally share the sales that came in and how much we made from marketing.”<sup>132</sup> Abu Ghazaleh attributes this culture of transparency to, several times, being the determining factor of Simma’s survival. “The management team sacrificed a lot,” Tarazi says, “At one point we stopped salaries because of cash flow and purchases we had to do on behalf of consumers.”<sup>133</sup>

At this moment, Tarazi turns to Abu Ghazaleh to ask why she stayed at Simma: “The real answer is for the team. If Samer had not been Samer then I might have just left but I would never would have done that to them. [The people] are the vitality of the business.”<sup>134</sup> It is the value that permeates every level of Simma.

“When you look at the Iraqi market specifically, why are there no digital payment apps or infrastructure needed for digital payments?” asks Tarazi.<sup>135</sup> “It is specifically because we have

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<sup>130</sup> Zeina Abu Ghazaleh, by Pierre Cativiela.

<sup>131</sup> Samer Tarazi, by Pierre Cativiela.

<sup>132</sup> Samer Tarazi, by Pierre Cativiela.

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<sup>135</sup> Samer Tarazi, by Pierre Cativiela.

been at war” for the past two decades.<sup>136</sup> Imagine being a consumer in this market: “What happened with the bank? It disappeared. Where is my money? You cannot get it. Can I withdraw my money? Yes, you can get 100 dollars per day but that is it.”<sup>137</sup> This is the reality for people, nevermind consumers, in Iraq. “If I go to a supermarket [in Baghdad] I cannot use my credit or debit card, I do not want to even place my money in the bank.”<sup>138</sup> There is a complete vacuum of trust. Tarazi then dissects his own business strategy. “It was not us providing a better service, coming there and saying we are magnificent,” he concludes, “it is mostly you can trust us because we are as friendly as you are and we are not here to trick you.”<sup>139</sup>

This was a moment of epiphany for the project, and it occurred that this was the reason entrepreneurship in the Middle East has risen to be such a compelling area of study. As Tarazi states, “rebuilding that trust [with Iraqis] using a traditional approach with the speed of a banking [or government] person would take decades.”<sup>140</sup> Through entrepreneurship, that relationship can transform overnight. There is an inherently human element to startups in the Middle East; it is not only an aspect of culture but has become a prerequisite for success in many markets. Trust is the factor that confounds MNCs and foreign governments trying to operate in the regional market. It even applies to the region’s greatest recent success – the notion that cash-on-delivery (COD) transformed Careem into a 3 billion dollar business all because consumers were not fully ready to trust e-payment systems. Tarazi understands this on the level of the region’s most experienced entrepreneurs. In fact, he is now leveraging Simma’s relationship with customers to create in-app wallets. He launched prepaid vouchers earlier this year – “the biggest chunk of our

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team in Iraq said no one will trust keeping a prepaid balance” – it has been “three months since, we have done over 120,000 USD in sales in prepaid vouchers and have converted 14% of total orders from 100% COD now to 86% COD and 14% goes to wallet purchases.”<sup>141</sup> Now smiling, Tarazi adds that “It is just that simple.”<sup>142</sup>

In a final note on Simma’s journey to building trust with consumers, Tarazi describes a story that evokes the beginnings of Maktoob. “We had a certain container that was delayed beyond the expected shipping time for our orders,” Tarazi explains, “We had 1000 orders in there, and their worth was about 50,000 USD.”<sup>143</sup> “Maybe we thought we were turning away new customers, but we wanted to be honest. So we put out an official letter saying packages are delayed.”<sup>144</sup> Included within the new orders were cards with “a sad guy and delivery outfit”; on the back were the words “Sorry, we don’t like to let you down, please accept this gift as an apology.”<sup>145</sup> In a manner similar to Maktoob’s inclusion of Arabic keyboard stickers, these small cards unexpectedly and massively boosted Simma’s sales ever since, a sign that localized knowledge still powers the Middle Eastern market.

### *Conclusion: The Multiplier Effect*

At the heart of the Middle East is rapid change. The Gulf projects astronomical growth as its new generation takes the stage, wherein a pulse of reform will create new cities, new jobs, and allow the region to sprout model economies of the future. Jordan sees this vision with the same desire, betting on its history of perseverance to create ambitious economic plans. Yet, structural

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<sup>141</sup> Samer Tarazi, by Pierre Cativiela.

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<sup>145</sup> Samer Tarazi, by Pierre Cativiela.

challenges will inevitably impede Jordan's ability to keep pace with the Gulf. As observed in this study, this may not necessarily be to Jordan's detriment.

Jordan struggles with barriers in equitable education, governance, and lack of diversification, but it possesses a key resource that the Gulf lacks: human capital. Over time, Jordan will be given a chance to ameliorate its legal and societal structure; in contrast, Gulf countries must continue importing talent from around the world to sustain growth. Perhaps this will hurt Jordan's growth during this initial age of change, but it also gives Jordan the opportunity to grow sustainably in the long term. Jordan's greatest commodity is its stability, and the model of gradual structural change will only reinforce this.

Already this model has generated considerable success within Jordan's innovation community. A first generation of Jordanian entrepreneurs has come and gone, leaving networks of mentors and alumni that are highly passionate about working with the new generation. This is the multiplier effect of startups. As H.E. Marwan Juma explains, "A lot of startup companies we see in our region were once owners, previous managers, directors, or small partners in previous startups."<sup>146</sup> Creating these layers of innovators will add a crucial generational dimension to Jordan's economy, simultaneously serving to extinguish the generational dimension defining youth unemployment. As Samer Tarazi stipulates, it is decency and trust, on both an individual and governmental level, which have the power to rectify the region's misgivings. This takes time, perhaps more than Jordan thinks it can afford, but at least a solution can be identified, and adopted by the entrepreneurs who seek it.

As found in the study, youth continue to be cynical about building a future in Jordan. This worry appears very reasonable, as the Arab Spring set the tone for youth-government

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<sup>146</sup> H.E. Marwan Juma, by Pierre Cativiela.

relations of the 2010s, even if it was hardly active in Jordan. The cause of such generational and institutional distrust will always be debated. But it is important to recognize Jordan is making meaningful steps toward change. From the Crown Prince Foundation, to Oasis500, and to education initiatives of the EMV, Jordan is beginning to take the initiative on prioritizing youth. The study shows, both statistically and anecdotally, that entrepreneurship is an area where this is already happening today. Integrating lessons from this domain into the rest of society will guarantee building a society of greater trust for the next generation.

#### Appendix A: Interview Index

Farouq Omary – History and Global Politics Teacher at the Jubilee School

Hamza Saht – Undergraduate Student at Princess Sumaya University for Technology; Intern at Simma; Network Information Security Engineer

H.E. Marwan Juma – Former Minister of Information and Communications Technology; Founder of NETS, dot.jo, and Kinz; Co-Founder of Oasis500; Vice Chairman of the King Abdullah II Fund for Development; Board of Trustees at Princess Sumaya University for Technology

Mohammad Amr – Undergraduate Student at University of Jordan; Former Intern at Oasis500; Industrial Engineer

H.E. Mothanna Gharaibeh – Former Minister of Digital Economy and Entrepreneurship; Founder and CEO of Fifth Advisory Services; Board of Innovative Startups and SMEs Fund

Rabie Jammalieh – Corporate Entrepreneurship Responsibility Project Manager at Orange Jordan

Samer Tarazi – Co-Founder and CEO of Simma; Electronic Engineering Graduate of Princess Sumaya University for Technology



H.E. Yusuf Mansur – Former Minister of State for Economic Affairs; Co-Founder of EnConsult; Chairman of the Board of Trustees at Talal Abu-Ghazaleh University College for Innovation; Recipient of Medal of Independence from His Majesty King Hussein (1997)

Zeina Abu Ghazaleh – Product Owner at Simma; Computer Information Systems Graduate of Computer Information Systems

#### Appendix B: Sample Interview Questions (Education Version)

1. How would you characterize the strengths and weaknesses of primary and secondary education in Jordan? How has education improved since King Abdullah II inherited the throne?
2. What is the literacy rate in Jordan? How does it compare to the rest of the region? How is it determined?
3. Do there exist initiatives, perhaps from the government or a foundation, that target education reform? What metrics do they use to measure their impact? Who is advocating for these causes?
4. How would you characterize Jordan's spending on education? Is it underfunded? Where could new funds be distributed? What are the disparities between public and private education in Jordan? How much does private education cost? Do most government officials mostly receive private education?
5. What are the key skills missing from Jordan's current education system? Does the current system prepare students for the modern job market?
6. Is Jordan an entrepreneurial country? If not, would it benefit from becoming one?
7. How are young Jordanians perceived within the totality of their society – a liability? a resource? perhaps neither or both?

8. How can Jordan most effectively solve its problem of youth unemployment? How can it be addressed through education?

9. I have observed that Jordan has a large unemployed workforce of engineers. Would you be able to quantify this? How does this pose a problem for Jordan, and do you see it as an outcome of the current priorities of Jordan's education system? Do you see a path to resolving this issue?

## Appendix C: Informed Consent Form

### Pierre Cativiela, Williams College:

School for International Training—Jordan: Geopolitics, International Relations, and the future of the Middle East

1. The purpose of this study is to explore the effects of public and private sector collaboration to mitigate the effects of youth unemployment.

#### 2. Rights Notice

**If at any time, you feel that you are at risk or exposed to unreasonable harm, you may terminate and stop the interview.** Please take some time to carefully read the statements provided below.

a. **Privacy** - all information you present in this interview may be recorded and safeguarded. If you do not want the information recorded, you need to let the interviewer know.

b. **Anonymity** - all names in this study will be kept anonymous unless the participant chooses otherwise.

c. **Confidentiality** - all names will remain completely confidential and fully protected by the interviewer. By signing below, you give the interviewer full responsibility to uphold this contract and its contents. The interviewer will also sign a copy of this contract and give it to the participant.

#### 3. Instructions:

*Please read the following statements carefully and mark your preferences where indicated. Signing below indicates your agreement with all statements and your voluntary participation in the study. Signing below while failing to mark a preference where indicated will be interpreted as an affirmative preference. Please ask the researcher if you have any questions regarding this consent form.*

I am aware that this interview is conducted by an independent undergraduate researcher with the goal of producing a descriptive case study on the effects of innovation in Jordan with respect to youth unemployment.

I am aware that the information I provide is for research purposes only. I understand that my responses will be confidential and that my name will not be associated with any results of this study.

I am aware that I have the right to full anonymity upon request, and that upon request the researcher will omit all identifying information from both notes and drafts.

I am aware that I have the right to refuse to answer any question and to terminate my participation at any time, and that the researcher will answer any questions I have about the study.

I am aware of and take full responsibility for any risk, physical, psychological, legal, or social, associated with participation in this study.

I am aware that I will not receive monetary compensation for participation in this study, but a copy of the final study will be made available to me upon request.

I [ do / do not ] give the researcher permission to use my name and position in the final study.

I [ do / do not ] give the researcher permission to use my organizational affiliation in the final study.

I [ do / do not ] give the researcher permission to use data collected in this interview in a later study.

**Date:****Participant's Signature:**

\_\_\_\_\_

\_\_\_\_\_

**Participant's Printed Name:** \_\_\_\_\_ **Researcher's Signature:***Thank you for participating!**Questions, comments, complaints, and requests for the final written study can be directed to:*

Dr. Raed AlTabini, SIT Jordan Academic Director

Email: [raed.altabini@sit.edu](mailto:raed.altabini@sit.edu)

### Bibliography

Abu Ghazaleh, Zeina. By Pierre Cativiela.

Amr, Mohammed. By Pierre Cativiela.

“2022 Corruption Perceptions Index.” Transparency.org. Transparency International, 2022. <https://www.transparency.org/en/cpi/2022>.

Bay Area Council Economic Institute. *Assessing Jordan's Potential as a Middle East Business and ICT Base*. June, 2022.

<http://www.bayareaconomy.org/files/pdf/JordanReport-July2022-Web.pdf>.

Brown, Heather, Emily Guskin, and Amy Mitchell. 2012. “The Role of Social Media in the Arab Uprisings.” Pew Research Center’s Journalism Project. November 28, 2012. <https://www.pewresearch.org/journalism/2012/11/28/role-social-media-arab-uprisings>.

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ). *Jordan's Startup Economy: Assessing the economic contribution and potential of tech and tech-enabled startups*. May, 2019

[https://www.giz.de/en/downloads/Startup\\_%20Economy\\_Jordan\\_EN.pdf](https://www.giz.de/en/downloads/Startup_%20Economy_Jordan_EN.pdf).

DHILLON, NAVTEJ, TARIK YOUSEF, and RAJ M. DESAI. "Generation in Waiting: The Unfulfilled Promise of Young People in the Middle East." In *The Imperative of Development: The Wolfensohn Center at Brookings*, edited by GEOFFREY GERTZ, HOMI KHARAS, and JOHANNES F. LINN, 143–53. Brookings Institution Press, 2017. <http://www.jstor.org/stable/10.7864/j.ctt1vjnqt.15>.

Gharaibeh, Mothanna. By Pierre Cativiela.

Jammalieh, Rabie. By Pierre Cativiela.

Jordan Strategy Forum. *The "World Creativity & Innovation Day": The Underlying Challenge Facing Jordan*. April, 2023. [https://jsf.org/uploads/2023/05/02/The%20%20World%20Creativity%20\\_%20Innovation%20Day%20The%20Underlying%20Challenge%20Facing%20Jordan-1683009514.pdf](https://jsf.org/uploads/2023/05/02/The%20%20World%20Creativity%20_%20Innovation%20Day%20The%20Underlying%20Challenge%20Facing%20Jordan-1683009514.pdf).

Juma, Marwan. By Pierre Cativiela.

Kumar, Krishna B. "Crisis Beyond the Crises: MENA's Youth Unemployment Problem." *Horizons: Journal of International Relations and Sustainable Development*, no. 16 (2020): 186–97. <https://www.jstor.org/stable/48573760>.

Langendorf, Manuel. "DIGITAL STABILITY: HOW TECHNOLOGY CAN EMPOWER FUTURE GENERATIONS IN THE MIDDLE EAST." European Council on Foreign Relations, 2020. <http://www.jstor.org/stable/resrep24718>.

Mansur, Yusuf. By Pierre Cativiela.

Mazzucato, Mariana. "THE CREATIVE STATE." *RSA Journal* 161, no. 5562 (2015): 12–17. <http://www.jstor.org/stable/26204405>.

Mazzucato, Mariana. "The Innovative State: Governments Should Make Markets, Not Just Fix Them." *Foreign Affairs* 94, no. 1 (2015): 61–68. <http://www.jstor.org/stable/24483218>.

Omary, Farouq. By Pierre Cativiela.

"Profile of Amjad Masad: Founder of Replit." n.d. <https://www.linkedin.com/in/amjadmasad/>.

Saht, Hamza. By Pierre Cativiela.

Schröder Christopher. *Startup Rising: The Entrepreneurial Revolution Remaking the Middle East*. St. Martin's Griffin, 2014.

Shekhawat, Jaiveer. "Cloud Developer Platform Replit Valued at \$1.16 BLN after Latest Funding Round." Reuters. Thomson Reuters, April 25, 2023.

<https://www.reuters.com/technology/cloud-developer-platform-replit-valued-116-bln-after-latest-funding-round-2023-04-25/>.

Tarazi, Samer. By Pierre Cativiela.

The Royal Hashemite Court, *Economic Modernisation Vision*, January 30, 2022.

<https://www.jordanvision.jo/img/vision-en.pdf>.

Transparency International. "2022 Corruption Perceptions Index." Transparency International. 2022. <https://www.transparency.org/en/cpi/2022>.

"US Foreign Aid by Country 2023." 2023. Worldpopulationreview.com. 2023.

<https://worldpopulationreview.com/country-rankings/us-foreign-aid-by-country>.