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VISIONS OF DIVERSITY: THE KINGDOM OF SAUDI ARABIA'S VISION 2030 AND ITS EFFORTS TO BUILD A DIVERSIFIED ECONOMY

MADISON DERENDINGER
and
BRIAN FRANK

MASTERS DEGREE CANDIDATES
MIDDLEBURY INSTITUTE OF INTERNATIONAL STUDIES

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ABSTRACT

The Kingdom of Saudi Arabia (KSA) has climbed international growth charts after releasing its ambitious Vision 2030 plan (2016). Vision 2030 is holistic in its mission to change the social, political, and economic life of the KSA. Economically Vision 2030 plan is projected to diversify and build sustainability to the biased Saudi economy that has been riding the historic highs of lucrative oil production. The purpose of this paper is to review the economic changes underway in the KSA. By reviewing Vision 2030 by eight economic sectors (petrochemical, tourism & hospitality, mining, healthcare, manufacturing, retail, construction, and finance), we explore and express the recent successes, growth trends, complications, and risks while offering suggestions for the future of Saudi economic growth and diversification. If the KSA aims to grow non-oil sectors to mend the country's biased economy, then this paper lays out sectors of most significant importance to Vision 2030's ambitions. KSA owns enormous oil wealth and centralized power; the potential to write a future beyond oil is one of critical importance for regional and global economics.

The views and findings expressed here are those of the authors and do not necessarily reflect those of the Middlebury Institute of International Studies or any officials of the Institute.

Introduction

Twenty years ago, if you had told me that in 2022 the future king of Saudi Arabia would be pursuing a relationship with Israel; treating women as full members of society; punishing corruption, even in his own family; staunching the flow of jihadists; diversifying and liberalizing his economy and society; and encouraging the world to see his country and his country to see the world—Wahhabism be damned—I would have told you that your time machine was malfunctioning and you had visited 2052 at the earliest.—Graeme Wood, Staff writer at the Atlantic, Atlantic article: Absolute Power, issue date: April 2022.¹

The Kingdom of Saudi Arabia (KSA) is an enigma to outsiders. Western observers unfamiliar with the Kingdom find it easy to conjure visions of Lawrence of Arabia, where caravans of hostile Bedouins dot the vast, sandy landscape. One of the 1.8 billion Muslims may imagine a scene entirely different, where Mecca and Medina stand as religious obelisks, shimmering from the cacophony of circumambulating worshippers. However, advertisements of the KSA's megalithic building projects, new and opulent sports leagues, and futuristic resort towns such as NEOM offer a new source of imagery for outsiders. Bouncing into our online algorithms, the KSA has suggested they are after more than just a rebranding strategy to paste over the Bedouin or religious tropes. As time increases and prospective developments from the KSA continue to amaze, the new image replacing previous outsider tropes becomes a question mark to the future feasibility of a new and modernized Saudi Arabia.

Until now, the KSA has relied comfortably on its oil revenues to keep internal stability and avoid potentially rocky systematic economic transformations. The recent economic initiative from Saudi Arabia's Vision 2030 indicates that changing from a biased economy (oil dependent) to a balanced one (where diversified production and new economies of scale can prosper) will mean a more stable Kingdom. Leveraging our research with country-wide analysis reports by McKinsey & Company (2015), and secondary academic research, this paper seeks to address Saudi Arabia's attempts to create economic diversity and sustainability by examining its ambitious Vision 2030 plan (2016). This paper will address the viability of key aspects of Saudi Arabia's Vision 2030 (2016) and analyze future growth with a particular interest in its potential risks and opportunities.

KSA is a G20 country with oil, surprising internal stability, and regional clout. If KSA diversifies its economy, it will break the mold of oil-cursed developing nations and join the list of Asian nations rising through technocratic dominance rather than democratization. KSA would emerge with the new flair of being an Islamic dynasty and the stewards of Islam's two holiest cities. Richard Wilson (2023) noted, "Saudi Arabia is having its moment."²

Background

Endowed with one of the largest oil reserves in the world, the KSA inevitably monopolized the oil industry and crowded out non-oil development. For much of its history, annual revenue would be based entirely on oil production and sale in the global market.³ This form of biased growth has been given the moniker of the Dutch Disease (1977). In the 1980s, two Australian economists, Max Corden and Peter Neary (1984), wrote an essay explaining the phrase the Dutch Disease—a process that negatively affects economic diversity when a country finds booming wealth from an exportable good—such as oil—that then

¹ Wood, Graeme. "Absolute Power." *The Atlantic*, April 2022, 34.

² Wilson, Richard; Zeigler, Lucien. "Knight Frank's Faisal Durrani Joins The 966 to Talk Saudi Real Estate, Giga-Projects and Much More," *The 966 Podcast*. April 28, 2023.

³ Krane, Jim. "Climate Strategy for Producer Countries: The Case of Saudi Arabia." In *When Can Oil Economies Deemed Sustainable?*

contracts the available resources that would be used for production and expansion of other tradeable activities.⁴ This boom further exacerbates the economy by appreciating the country's currency leaving non-boom production activities too costly to produce, building a precedent for importing more goods and siloing the economy around the singular booming industry.⁵ For the Dutch, this resulted in atrophies to its manufacturing and industrial markets, whereas in Saudi Arabia, there were no prominent industries to be atrophied.

For the KSA, it is important to consider whether natural resources would be a blessing or a curse. The natural resource curse has been explored extensively by academics in various fields. However, the causation between a substantial resource endowment and lack of economic development or the converse does is not immutable.⁶ Norway, for example, has massive oil reserves yet is one of the strongest economies and GDP per capita.⁷ What is the deciding factor is not the mere presence of resource endowment but rather the use of this resource as a dominant but not sole player.

Depending on the political-economic application, a resource can be a blessing or curse. KSA has been deemed a rentier state, describing its ability to control political favor and public legitimacy by appeasing its inhabitants through rents—which in a singular oil economy means oil revenues.⁸ Rentier states are volatile and prone to market instability, leaving them in a position to lose far more than revenue if oil production were to stop.⁹ Suppose a rentier state could not afford the public the luxury of rent the state pays. In that case, the citizens could aspire for more political, social, economic, and religious freedoms, something the KSA as a dynasty and clerical sect would not give up so easily.

Saudi political expert Jean-Francois Seznec (2011) points to the insular family structure that guards it against external instability and the avoidance of democratization.¹⁰ Seznec (2011) forms the helpful image of a diamond to picture the Saudi socio-political order, where Senior Saudi princes form the center. The first corner of the diamond consists of the Civil Service: Administration, Finance, Saudi ARAMCO, SABIC, and Ma'an. The second corner is the Merchant class, comprising industry (small and medium enterprises and large-scale private companies) and the day-to-day merchant dealings of the economy. The third corner is the Sahwa or clergy. They legitimize the crown by bestowing Islamic jurisprudence, regulating moral codes of conduct, overseeing the education system, and censoring the media. Lastly, the minor princes form the fourth corner of the diamond. The exact number of minor princes is elusive but ranges in the thousands. They are predominantly in the military and security forces. Communication between the corners of the diamond is non-existent, and all communication is transmitted through the Senior Princes. No one body holds power, and no multilateral communication exists. This diamond formed the basis of a lasting dynasty. Seznec (2011) points out that the Senior Princes are the sole arbiters for political stability and dispute resolution.¹¹

Recently, the eighty-seven-year-old King Salman's decision to nominate his successor, the crown prince, as his youngest son, thirty-seven-year-old Muhammad bin Salman (MbS), has departed from Seznec's (2011) diamond structure, and is, therefore, crucial to KSA story of economic transformation.

⁴ Corden, Warner Max. "Booming sector and Dutch disease economics: survey and consolidation," 359-380.

⁵ Kojo, Naoko C. "Demystifying Dutch Disease," 2.

⁶ Sachs, Jeffrey D., and Andrew M. Warner. "Natural Resources and Economic Development: The Curse of Natural Resources." 824.

⁷ Elwerefli, Ali, and James Benhin. "Oil a Blessing or Curse: A Comparative Assessment of Nigeria, Norway and the United Arab Emirates."

⁸ Beblawi, Hazem. "The rentier state in the Arab world." 383.

⁹ Ibid.

¹⁰ Seznec, Jean-Francois. "Political Control in Saudi Arabia: The Avoidance of Democratization." In *Modern Middle East Authoritarianism: Roots, Ramifications, and Crisis*, 143.

¹¹ Seznec, Jean-Francois. 155.

Stenslie (2018) has pointed to the fact that never before has so much of the state's power rested in the hands of a senior prince, Muhammad bin Salman (MbS).¹² MbS underwent a "Macbethian power struggle" that resulted in him not only being the de-facto ruler but having sole control of the country's "arms, oil, and its important relationship with the United States" by imprisoning his political opponents (his brothers, other princes, as well as unseating the power of the clergy).¹³ If the actual stability of the country rests not on oil prices but on internal family stability, then how stable is this shift to a young modernizing dictator?

As of 2023, MbS is firmly in control of the KSA. Modernization efforts have increased female participation in society. Nowadays, women are permitted to drive, participate in public spaces, and comprise a growing workforce. KSA has also exited the pandemic with record-breaking growth.¹⁴ Unprecedented infrastructure projects have broken ground. Constructive talks with Tehran and Riyadh are all moments of wonder over MbS's new dynasty.¹⁵ Along with its neighbors, KSA has recently realized that all the spoils of oil wealth come at the price of economic instability. Many nations, including the KSA, have formed vision statements such as the "Oman 2040, Abu Dhabi Economic Vision, Qatar National Vision 2030, and Kuwait Vision 2035" to address their economic Achilles heel. The Saudi Vision 2030 initiative aims to restructure the Saudi economy from oil dependency by diverting oil revenue to inject non-oil sector growth. Pending its success, it will be worthwhile for all interested in the region to pay close attention to the viability of the initiative's claims.

A few months before the Saudi Vision 2030 was announced, the McKinsey Global Institute (the research body of the consulting firm McKinsey & Company) released independent research on how to diversify the Saudi economy entitled "Saudi Arabia Beyond Oil" in December 2015.¹⁶ The plan lays out a detailed analysis of Saudi Arabia's economic sectors. The plan postulates that by 2030, KSA can double its GDP while generating six million jobs.¹⁷ Soon after the McKinsey Global Institutes report was released, MbS announced his Saudi Vision 2030 in April 2016, outlining almost identical figures and targeted growth sectors.¹⁸

Development projects are underway in many sectors of KSA. This paper lays out the current state of those projects and the opportunities, challenges, strengths, and weaknesses in a few important sectors identified by the McKinsey report and Vision 2030. The first section of this paper will review eight sectors. The next section will analyze overarching threats and challenges. The paper will conclude with a discussion on the opportunities for synergistic growth and the potential success in diversifying the Saudi economy.

3. Sector Analysis

3.1 Petrochemical

One sector targeted for expansion by the Saudi Vision 2030 is the petrochemical sector. According to the Observatory of Economic Complexity, Saudi Arabia exported (2021) \$49.8B in plastics and rubbers and chemical products (HS2 IDs 28-40), approximately one-fifth of their exports that year. Since 2016, the value of its petrochemical product exports has oscillated somewhat, being valued at \$34.5B, \$37.5B,

¹² Stenslie, Stig. "The end of elite unity and the stability of Saudi Arabia,".

¹³ Stenslie, Stig. 61.

¹⁴ IMF Staff. "Saudi Arabia: 2022 Article IV Consultation-Press Release; and Staff Report." 5.

¹⁵ Orr, Bernard, and Aziz El Yaakoubi. "Top Iranian, Saudi Envoys Meet in China in Restoration of Diplomatic Ties." *Reuters*.

¹⁶ Al-Kibsi, Gassan, Jonathan Woetzel, Tom Isherwood, Jawad Khan, Jan Mischke, and Hassan Noura. "SAUDI ARABIA BEYOND OIL: THE INVESTMENT AND PRODUCTIVITY."

¹⁷ *Ibid*.

¹⁸ Kingdom of Saudi Arabia. *Vision 2030*. Saudi Arabia, 2016. <https://www.mdpi.com/2071-1050/14/24/16905>.

\$46.4B, \$42.5B, \$36.1B, and \$49.8B from 2016 to 2021, respectively.¹⁹ That trend towards growth, coupled with the KSA petrochemical sector's resilient response to the global economic depression of 2004-2007,²⁰ create room for optimism regarding the prospects of expanding this sector.

However, Ali and Faisal determined that since 2004 the profitability of Saudi petrochemical firms has been falling, and pointed out that "in Saudi petrochemicals companies, there is a negative relationship between debt equity and profitability owing to underutilization of available resources."²¹ In another study conducted by Abu-Shawer and Ajlouni, it was determined that the stock prices of the 10 petrochemical firms listed on the Saudi stock market are not related to the profit performance of those companies.²² In other words, people who invest in those firms and companies are not doing so based on their profitability. In line with MBS's public goals for Vision 2030 to combat corruption, it would be useful, then, for an investigation to be made into the sponsors of those companies to deduce their motives.

In addition to potential corruption in the petrochemical industry, a study conducted by Alhajri, et. al., found that:

The most influencing factors causing schedule delays during the construction of petrochemical projects in Saudi Arabia are 'Poor site management and supervision by contractors'; 'Conflict between the main contractor and subcontractor'; 'Poor planning and scheduling of projects by the contractor'; 'Delays in material or equipment delivery'; and followed by 'Delays in Handing Over Construction Site to the Contractor'.²³

They find that factors such as these often have the greatest negative impact on petrochemical projects in KSA, and that they typically come up during the construction phase. Addressing those issues, they argue, could help prevent losses. They also identify potential action steps that owners of the projects and contractors carrying them out could follow to address these negative impactors.²⁴ Additionally, Ghaithan, et. al., in an analysis of environmental sustainability of 112 Saudi petrochemical and plastics firms, extolled the virtues and opportunities to that lie in employing the use of Industry 4.0 operation methods (such as internet of things technology, robotics, cloud computing and bigger data analysis) and lean manufacturing (or waste minimizing) processes can help maximize profits, thereby contributing to economic social sustainability as well as environmental.²⁵ Further, Alidrisi, et. al., conducted a prototype test using data from the 10 Saudi petrochemical firms listed in the Saudi Stock Exchange Market and urged the further use of data envelopment analysis methods to compare the effectiveness and efficiency of as

¹⁹ OEC - The Observatory of Economic Complexity. "What Does Saudi Arabia Export? (2021) | OEC." Accessed April 28, 2023. https://oec.world/en/visualize/tree_map/hs92/export/sau/all/show/2021/.

²⁰ Ali, Anis, and Eyad Theeb. "Financial Performance of Petrochemicals Industry in Saudi Arabia: Pre and Post Global Economic Recession." *International Journal of Management Studies* V (October 29, 2018): 21–29. [https://doi.org/10.18843/ijms/v5i4\(8\)/03](https://doi.org/10.18843/ijms/v5i4(8)/03).

²¹ Ali, Anis, and Shaha Faisal. "Capital Structure and Financial Performance: A Case of Saudi Petrochemical Industry." *The Journal of Asian Finance, Economics and Business* 7, no. 7 (2020): 105–12. <https://doi.org/10.13106/jafeb.2020.vol7.no7.105>.

²² Abu-Shawer, Munir Ismail, and Ahmed Taha Al Ajlouni. "Impact of Profitability on Stock Market Value Evidence from Petrochemical Industry in Saudi Arabia," n.d.

²³ Alhajri, Abdullah Rasheed, and Adel Alshibani. 2018. "Critical Factors behind Construction Delay in Petrochemical Projects in Saudi Arabia" *Energies* 11, no. 7: 1652. <https://doi.org/10.3390/en11071652>

²⁴ Alhajri, Abdullah Rasheed, and Adel Alshibani. 2018. "Critical Factors behind Construction Delay in Petrochemical Projects in Saudi Arabia" *Energies* 11, no. 7: 1652. <https://doi.org/10.3390/en11071652>

²⁵ Ghaithan, Ahmed, Mohammed Khan, Awsan Mohammed, and Laith Hadidi. "Impact of Industry 4.0 and Lean Manufacturing on the Sustainability Performance of Plastic and Petrochemical Organizations in Saudi Arabia." *Sustainability* 13, no. 20 (January 2021): 11252. <https://doi.org/10.3390/su132011252>.

many Saudi petrochemical firms as possible.²⁶ Doing so could help identify the most effective and efficient firms. Those companies could then be studied further to identify processes and practices that could be encouraged in others. This, in turn, would increase the profitability and sustainability of Saudi petrochemical enterprises and of its entire petrochemical industry.

3.2 Tourism & Hospitality

Tourism is noted by Vision 2030 for its factors of economic and cultural growth. One feature of tourism is the inverse relationship with oil prices. When oil prices are high, tourism rates go down. Thus, a country dependent on oil exports would benefit by building a sector to offset export dips in oil.²⁷ International Tourism Organization data from 2019 shows that the Tourism industry saw 1.7 trillion USD in world exports.²⁸ Therefore it is no surprise that both McKinsey and Vision 2030 proposed investing 1 trillion USD in boosting KSA's industry to accommodate and attract 100 million annual tourists by 2030.²⁹

From 1990 to 2018, Naseem (2021) found through descriptive analysis that "a bidirectional nexus was found between tourism and economic growth in KSA."³⁰ Jamel (2020) further described the iceberg effect of the tourism sector, where the visible surface of the sector brings calculable growth, and the invisible (under the surface) leads to multidirectional growth and spillover into the local economy.³¹ Tourism stimulates local economies affecting SMEs, increases transportation, and boosts non-tradable goods, leading to "long-run economic growth."³²

One way that KSA attracts foreign investment into its hospitality market is through Green Investment (GI) initiatives. Abdou et al. (2022) investigate the added benefit hotel operators receive when shifting to GI hotel operations. These benefits include reduced upkeep costs and CO₂ emissions and the added corporate strategy of alluring foreign investment.³³ The Saudi Green Initiative (SGI) is pushing a total of "73,057 hotel rooms" to be built and in compliance with the SGI ordinances by 2030—this would drive an increase of "67.1%" in room availability.³⁴

Albuhlul (2022) makes the case that KSA's Vision 2030 focuses greatly on generating more sporting events to boost the quality of life; however, he sees sports as another way to diversify the Saudi economy.³⁵ In 2021 the unemployment rate among Saudi nationals was 11%, and Albuhlul sees increased sporting events as a way to employ more Saudi nationals.³⁶ Sports also have the potential to make the

²⁶ Alidrisi, Hisham, Mehmet Emin Aydin, Abdullah Omer Bafail, Reda Abdulal, and Shoukath Ali Karuvatt. "Monitoring the Performance of Petrochemical Organizations in Saudi Arabia Using Data Envelopment Analysis." *Mathematics* 7, no. 6 (June 2019): 519. <https://doi.org/10.3390/math7060519>.

²⁷ Hilal, N. "Tourism in the gulf cooperation council countries as a Priority for economic prospects and Diversification."

²⁸ World Tourism Organization. "Global and Regional Tourism Performance." *Global and regional tourism performance*

²⁹ Kingdom of KSA. *Vision 2030*.

³⁰ Naseem, Sana. "The role of tourism in economic growth: Empirical evidence from KSA."

³¹ Jamel, Lamia. "The relation between tourism and economic growth: a case of KSA as an emerging tourism destination," 30.

³² Ibid.

³³ Abdou et al. "Determinants and Consequences of Green Investment in the Saudi Hotel Industry."

³⁴ Ibid.

³⁵ Albuhlul, Essam Ali M. "The Potential Role of Sports Tourism in Supporting Local Economies in the Kingdom of KSA."

³⁶ Ibid.

country a "more attractive destination" for tourists, fueling greater economic spillover into local economies.³⁷

3.3 Mining

Mining is another sector of the economy that KSA seeks to expand as part of its Vision 2030 economic diversification efforts. Specifically, Nash, et. al., discussed an interesting opportunity for Saudi mining efforts: silicon. They discuss how silicon is in high demand throughout the world, being used especially for computer chips, metal alloys, and solar panels, and observe that it is typically found in deserts, of which KSA has an abundance. Their brief study results show that all Saudi deserts are rich in silicon, but some areas may be richer in it than others.³⁸ Alshehri, et. al., pointed out in their paper that KSA's central location between North Africa and the Middle East has placed it in an excellent position to export its mined goods to those countries.³⁹

Mining silicon in KSA is another way in which it could create synergistic growth towards multiple Vision 2030 goals in multiple sectors. As it mines for silicon, its mining industry will grow and become competitive with other silicon-exporting countries. However, expanding those mining operations could create opportunities for manufacturing, and could put KSA on the map as a competing producer of computer chips and solar panels. In producing solar panels, KSA would also have the potential to become a leading producer and consumer of solar energy, improving overall environmental sustainability in the country.

One Vision 2030 goal that the mining sector is not compatible with, however, is that of creating employment. Hasanov, et. al., pointed out that the construction sector is the only private sector that has a workforce dominated by Saudi nationals rather than foreign expats. They postulate that this could be because the mining industry is seen as less labor-intensive than work in other sectors. While increased Saudi employment in any sector is generally favorable, Hasanov, et. al., observes that the mining sector is already dominated by Saudi workers, and that the potential for adding to the mining labor force is limited. He reasons instead that expansion of the mining sector likely be the result of increased capital, productivity, and profitability.⁴⁰

A major challenge that the mining sector in KSA faces is maintaining environmental sustainability. Addressing this, in their research, Hefni, et. al., found more than 3,500 peer-reviewed articles had been published regarding waste management in mines. They also explored the merits, viability, and sustainability of backfilling strategies to make mining practices safer, more sustainable, more responsible, and more profitable.⁴¹ Implementing their practices as well as other well-researched and reasoned practices could go a long way in helping Saudi mining companies to expand their contributions to the Saudi economy as they increase and expand their operations in the coming years. Application of these methods could also serve to

³⁷ Ibid.

³⁸ Nash, Julie, Rita Koyame-Marsh, and Aisha Alyahyai. "Silicon in KSA and Its Potential Impact on the Saudi Economy." *International Journal of Mining and Mineral Engineering* 8 (January 1, 2017): 144. <https://doi.org/10.1504/IJMME.2017.10005133>.

³⁹ Mohammed N., Alshehri Abdulrahman, Geng Xianhui, and Syed Ahsan Ali Shah. "Non-Oil Economic Transition for Economic and Environmental Sustainability in KSA: A Multi-Factor Analysis under Fuzzy Environment." *Environmental Science and Pollution Research* 28, no. 40 (October 1, 2021): 56219–33. <https://doi.org/10.1007/s11356-021-14304-8>.

⁴⁰ Hasanov, Fakhri J., Jeyhun I. Mikayilov, Muhammad Javid, Moayad Al-Rasasi, Frederick Joutz, and Mohammed B Alabdullah. "Sectoral Employment Analysis for KSA." *Applied Economics* 53, no. 45 (September 26, 2021): 5267–80. <https://doi.org/10.1080/00036846.2021.1922590>.

⁴¹ Hefni, Mohammed, Hussin A. M. Ahmed, Ebaa Shaikh Omar, and Maaz A. Ali. "The Potential Re-Use of Saudi Mine Tailings in Mine Backfill: A Path towards Sustainable Mining in KSA." *Sustainability* 13, no. 11 (January 2021): 6204. <https://doi.org/10.3390/su13116204>.

prevent water contamination, which Mallick, et. al., observed that the mining industry is a major cause of in KSA,⁴² and environmental degradation that Almalki, et. al., warn could be hazardous for soils, plants, animals, and even nearby populations of people.⁴³

Private action towards sustainable mining, however, likely would not be enough. Khan, et. al., quoted several authors, suggesting that pressure from government agencies will be necessary to promote environmental awareness in executives, positive business characteristics, and sound environmental accounting, all of which would have a strong effect on mining firms' implementation of environmentally sustainable practices. They also urged that "the government should promote the environmental awareness program by conducting various activities like workshops, seminars, campaigns and pamphlets particularly targeted to the younger generation...."⁴⁴

3.4 Healthcare

Healthcare in KSA began with the formation of the state in 1932, making it a constitutional right for Saudi citizens to have access to free healthcare. Current public funding covers 80% of all healthcare expenses in the country. However, as 70% of the population falls into the upper and middle-income bracket, the need to fund increasingly expensive treatments significantly burdens the government budget. According to the US International Trade Administration, in 2022, KSA used 14.4% of its fiscal budget on healthcare, placing it in the top three expenses next to education and military. With high expenses, the state recognizes that changes are needed to offset its heavy budget.⁴⁵ According to the US International Trade Administration, in 2022, KSA used 14.4% of its fiscal budget on healthcare, placing it in the top three expenses next to education and military.⁴⁶ With high expenses, the state recognizes that changes are needed to offset its heavy budget.

Vision 2030 outlines its goal to minimize budget allocations for the healthcare sector through the privatization of Public-Private Partnerships (PPPs). PPPs allow governments to lower the risks associated with the sector's growth and build long-term stability.⁴⁷ KSA will grant private ownership over the operational phase of healthcare. Granting design and construction access could offer more than just operating and running established health centers.⁴⁸ Either way, PPPs are a step toward greater efficiency than the current public operations.

Barriers to success in the PPPs appear where lack of regulatory frameworks slow contract completion. Currently private healthcare construction is not managed under a legal body to oversee the construction bidding or permitting process. This funnels and occludes private firms and make it far too costly to undergo such lengthy expenses to pass the red tape, something public entities are far more resilient or rather nascently immune to. However, South Korea had similar experiences building strong PPPs in a

⁴² Mallick, Javed, Chander Kumar Singh, Mohammed K. AlMesfer, Vijay P. Singh, and Majed Alsubih.

"Groundwater Quality Studies in the Kingdom of KSA: Prevalent Research and Management Dimensions." *Water* 13, no. 9 (January 2021): 1266. <https://doi.org/10.3390/w13091266>.

⁴³ Almalki, Ahmed M., Jamaan Ajarem, Naif Altoom, Fahed S. Al-Otaibi, Saleh N. Maodaa, Ahmed A. Allam, and Ayman M. Mahmoud. "Effects of Mining Activities on Gerbillus Nanus in KSA: A Biochemical and Histological Study." *Animals* 9, no. 9 (September 2019): 664. <https://doi.org/10.3390/ani9090664>.

⁴⁴ KHAN, Uzma, Mohammad Imdadul HAQUE, and Aarif Mohammad KHAN. "Environmental Sustainability Awareness in the Kingdom of Saudi Arabia." *The Journal of Asian Finance, Economics and Business* 7, no. 9 (September 30, 2020): 687–95. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO9.687>.

⁴⁵ Almalki, Mohammed, Gerard FitzGerald, and Michele Clark. "Health care system in KSA: an overview." *EMHJ-Eastern Mediterranean Health Journal*, 17 (10), 784-793, 2011 (2011).

⁴⁶ Khan, Khalid. 2022. *Saudi Arabia-Country Commercial Guide (Healthcare)*. International Trade Administration.

⁴⁷ Rahman, Redwanur. "The privatization of health care system in Saudi Arabia." *Health services insights* 13 (2020).

⁴⁸ Ibid.

climate of stiflingly narrow regulation where slow contract approval and oversight mismanaged resources and overlooked potential. However, ROK developed the Private Infrastructure Investment Management Center (PIMAC) that built incentives and regulations that improved the business climate for successful healthcare companies to bid for contracts.⁴⁹

Post-Pandemic KSA also must face a world of digitization. The increasing need for KSA to address its health sector will pose challenges, potential privatization, and sector growth. Developed countries have well-established tech centers built around securing data. Alharbe (2021) has explored the rates of data breaches in KSA that have significantly increased in the last few years.⁵⁰ Building a secure and functional healthcare data repository will increase employment and learning, amplifying KSA's ability to modernize its infrastructure and economy.⁵¹

3.5 Manufacturing

Esmail identified KSA's manufacturing sector as the "most important non-oil sector in the Kingdom" and reasoned that it "can take advantage of the natural and human resources and manufacture internally to meet local and regional demand."⁵² This recommendation lines up with the findings of the McKinsey report, and KSA has stated its intentions to try to grow that sector as part of its economic diversification regime. In their report, Almosabbeh and Almoree used data from the World Bank, the Saudi Monetary Agency, and the PWT to show that growth in the manufacturing sector should lead to increased productivity in that sector and to overall GDP growth.⁵³ Developing that sector will require the expansion of SMEs, which is another Vision 2030 goal.

Karim, et. al., made another suggestion that he argues would "virtually guarantee" the success of any factory: lean manufacturing.⁵⁴ In his study, he explored potential reasons for why the practice of lean manufacturing was not being used in Saudi manufacturing firms, and found that organizational culture, lack of skilled labor, and lack of managerial commitment to it to be some of the main culprits.⁵⁵ Applying his findings and propagating the use of lean manufacturing could multiply the presence of SMEs in KSA and strengthen its manufacturing sector. Alkhoraif and McLaughlin's conducted a survey to identify what aspects of organizational culture facilitate the implementation of lean manufacturing in SMEs. They also sought to address how such cultural aspects could be built up within Saudi SMEs.⁵⁶ They found that failure to implement change management, sustained effort and improvement processes, and organizational strategy and vision for lean manufacturing were among the main barriers to successful application of lean manufacturing.

⁴⁹ Al-Hanawi et al. "Barriers to the implementation of public-private partnerships in the healthcare sector in the Kingdom of KSA."

⁵⁰ Alharbe, Nawaf. "Impact of digitization of healthcare system in KSA."

⁵¹ Ibid.

⁵² Esmail, Hanaa Abdelaty Hasan. "Economic Growth of KSA Between Present and Future According to 2030 Vision." *Asian Social Science* 14, no. 12 (November 29, 2018): 192. <https://doi.org/10.5539/ass.v14n12p192>.

⁵³ Almosabbeh, Imadeddin, and Mohamad Almoree. "The Relationship between Manufacturing Production and Economic Growth in the Kingdom of KSA." *Journal of Economic Studies* 45 (July 27, 2018): 00–00. <https://doi.org/10.1108/JES-02-2017-0029>.

⁵⁴ Karim, M. Azharul, Mubarak Aljuhani, Ray Duplock, and Prasad Yarlagadda. "Implementation of Lean Manufacturing in Saudi Manufacturing Organisations: An Empirical Study." *Advanced Materials Research* 339 (September 2011): 250–53.

⁵⁵ Ibid.

⁵⁶ Alkhoraif, Abdullah, and Patrick McLaughlin. "Lean Implementation within Manufacturing SMEs in KSA: Organizational Culture Aspects." *Journal of King Saud University - Engineering Sciences, SI: Industrial Performance Appraisal: Theory, Application and Future Directions*, 30, no. 3 (July 1, 2018): 232–42. <https://doi.org/10.1016/j.jksues.2018.04.002>.

Rahman and Sharma conducted a study of the impact of increased cash flows in both KSA's insurance and manufacturing sectors and concluded that "an increase in cash flows in these sectors shall enhance their financial performance." They also suggested that it is possible that managers in some manufacturing firms are not demonstrating significant interest in growing their businesses, implying that changing that could magnify the benefits of increased cash flows.⁵⁷

There are several steps the Saudi government could take to encourage sustainable growth and diversification in manufacturing. For instance, tax breaks or other supports for firms that apply lean manufacturing and fines or loss of licenses on those that don't. Mandating that an enterprise should reach a certain size or age before being required to commit to such practices should encourage lean manufacturing without discouraging the entrance of new SMEs to the Saudi manufacturing sector.

To increase cash flows to manufacturing firms, policies, and practices of using oil profits to invest into the manufacturing and other sectors, as explored by Elwereflli and Benhin⁵⁸, could be effective. They posit that injection of government funds into other sectors (including the manufacturing sector) could turn oil from a curse into a blessing. Firm owners could be enticed to hire better managers with tax incentives related to growth of a business in both terms of profits, production, and employment. The state could also specifically sponsor management training and degree programs as part of an initiative to get managers on-board with ensuring that Saudi manufacturing becomes more effective, profitable, and prominent.

3.6 Retail

Another potential sector identified by the McKinsey report as having potential for significant growth and diversification is the retail sector. Alzyadat, et. al., found that the retail and wholesale sector contributed to 10% of Saudi Arabia's GDP growth in 2019, and 9% of it in 2018.⁵⁹ TechSci Research reports that in 2022 there were significant rises in point-of-sale transactions, real estate stock and land purchases, and that several retail chains expanded and achieved greater profits.⁶⁰ Saudi Arabia's retail sector is clearly already growing, which is a hopeful sign for its potential as a target sector for economic diversification.

Actively growing the retail sector has the potential to create synergistic development in other sectors that align with other Vision 2030 goals. For example, Abunad, et. al., observed that because Saudi households are typically far larger than Western households, their purchases of consumer goods and food products tend to be large.⁶¹ This suggests that there is not only a large source of labor that can find work in retail, but also a significant market for purchasing the retail goods. Rahman goes on to suggest that encouraging employment in the retail industry could be one of the most effective tools Saudi Arabia has to fight its current unemployment trends. He submits that such effort could be positively impacted by state-sponsored training and education for current and future retailers.⁶² Additionally, TechSci Research

⁵⁷ Rahman, Abdul, and Raj Bahadur Sharma. "Cash Flows and Financial Performance in the Industrial Sector of KSA: With Special Reference to Insurance and Manufacturing Sectors." *Investment Management and Financial Innovations* 17, no. 4 (November 6, 2020): 76–84. [https://doi.org/10.21511/imfi.17\(4\).2020.07](https://doi.org/10.21511/imfi.17(4).2020.07).

⁵⁸ Elwereflli, Ali, and James Benhin. "Oil a Blessing or Curse: A Comparative Assessment of Nigeria, Norway and the United Arab Emirates."

⁵⁹ Alzyadat, Jumah Ahmad, and Monira Saleh Almuslamani. "The Role of Technological Progress in the Distribution Sector: Evidence from Saudi Arabia Wholesale and Retail Trade Sector." *Journal of Distribution Science* 19, no. 3 (2021): 15–23. <https://doi.org/10.15722/jds.19.3.202103.15>.

⁶⁰ "Saudi Arabia Retail Market by Size, Share, Trends, Growth, Forecast 2028 | TechSci Research." Accessed May 3, 2023. <https://www.techsciresearch.com/report/saudi-arabia-retail-market/1505.html>.

⁶¹ Abunad, Salah, Mahmood Ali, Mohammed Fazlurabbi, and Hosam Ismail. "A Study of State of Food Retail Supply Chain in Saudi Arabia: A Conceptual Framework." *Engineering Management Research* 5 (June 14, 2016): 1. <https://doi.org/10.5539/emr.v5n2p1>.

⁶² Rahman, Mohammad Naquibur. *Trends and Challenges of Food Retail Sector in Saudi Arabia*, 2017.

proposes that tourism could fuel the expansion of the retail sector,⁶³ and tourism, specifically religious tourism, is one asset that the Vision 2030 hopes that Saudi Arabia can make use of in its diversification efforts.⁶⁴

To start making improvements in the retail sector, it's important first to analyze it for its strengths and weaknesses. The apparent unavailability of such information led Abunad, et. al., to create a framework that could be used to analyze the current state of the Saudi food-retail supply chain as well as the rest of the retail sector. They suggest that incorporating effective strategies learned from studies into other Saudi supply-chain operations "could make organizations in the supply chain system more efficient and responsive."⁶⁵

Alzyadat, et. al., found that development of retail industry technologies would have a greater impact on the growth of that sector than an increase in capital or labor force.⁶⁶ Both they and Rahman⁶⁷ point out the opportunities that lie in improving access to and use of e-commerce and online shopping to strengthen the retail sector. Rahman also cited the technology gap between Saudi Arabia and the West as one of the most significant challenges Saudi Arabia faces to expand its retail sector.⁶⁸ In their literature review, Abunad, et. al., pointed out that expansion of retail industries and services in other developing countries was attended by the dissemination of equipment like refrigerators that enhanced customers' food storage abilities, by the improvement of transportation technology and infrastructure, and by the lure of lower-priced retail goods.⁶⁹ Additionally, Hasanov, et. al., observed in 2021 that Saudi nationals tend to prefer government jobs because workers in the public sector "are well-paid, have job security, have more benefits, and work less hours compared to work in the private sector."⁷⁰ The combination of research done by these scholars suggests that an expansion of the retail sector could be more easily accomplished by improving the physical and technological infrastructure that supports it, supporting research to identify strengths and weaknesses in the retail sector, and encouraging employment in retail by providing state-sponsored employment benefits in that sector.

3.7 Construction

The construction sector is another that has been targeted as a viable option for economic diversification in the Vision 2030 and presents further opportunities and challenges for achieving multiple goals at the same time. Regarding increasing employment while expanding the construction industry, Hasanov, et. al., observed in their study that the construction sector exhibits "a nearly one-to-one relationship between employment and value-added in the long run. For [this sector], a 1% increase in value-added will result in

⁶³ "Saudi Arabia Retail Market by Size, Share, Trends, Growth, Forecast 2028 | TechSci Research." Accessed May 3, 2023. <https://www.techsciresearch.com/report/saudi-arabia-retail-market/1505.html>.

⁶⁴ Kingdom of KSA. *Vision 2030*.

⁶⁵ Abunad, Salah, Mahmood Ali, Mohammed Fazlrabbi, and Hosam Ismail. "A Study of State of Food Retail Supply Chain in Saudi Arabia: A Conceptual Framework." *Engineering Management Research* 5 (June 14, 2016): 1. <https://doi.org/10.5539/emr.v5n2p1>.

⁶⁶ Alzyadat, Jumah Ahmad, and Monira Saleh Almuslamani. "The Role of Technological Progress in the Distribution Sector: Evidence from Saudi Arabia Wholesale and Retail Trade Sector." *Journal of Distribution Science* 19, no. 3 (2021): 15–23. <https://doi.org/10.15722/jds.19.3.202103.15>.

⁶⁷ Rahman, Mohammad Naquibur. *Trends and Challenges of Food Retail Sector in Saudi Arabia*, 2017.

⁶⁸ *Ibid*.

⁶⁹ Abunad, Salah, Mahmood Ali, Mohammed Fazlrabbi, and Hosam Ismail. "A Study of State of Food Retail Supply Chain in Saudi Arabia: A Conceptual Framework." *Engineering Management Research* 5 (June 14, 2016): 1. <https://doi.org/10.5539/emr.v5n2p1>.

⁷⁰ Hasanov, Fakhri J., Jeyhun I. Mikayilov, Muhammad Javid, Moayad Al-Rasasi, Frederick Joutz, and Mohammed B Alabdullah. "Sectoral Employment Analysis for Saudi Arabia." *Applied Economics* 53, no. 45 (September 26, 2021): 5267–80. <https://doi.org/10.1080/00036846.2021.1922590>.

an equivalent rise in employment."⁷¹ In their paper, value added to workers constitutes employment benefits beyond wages. This suggests that perhaps some sort of state-sponsored benefits program in the construction sector, be it in the form of provided insurance or retirement, etc., would be likely to draw more workers to the construction sector, thereby expanding its capacity for growth. He also adds that "... by building new schools or bridges, [Saudi Arabia] increases demand directly for construction services and indirectly for the manufacturing and mining products and services used in the construction."⁷²

The main challenges that the Saudi construction sector currently faces are the use of the most up-to-date technologies and the employment of economically and environmentally sustainable practices. In his paper, Alyami, et. al., supports the implementation of building information modeling (BIM, a method of planning, building, and managing infrastructure, utilities, and buildings) in Saudi Arabian architecture, engineering, and construction firms (AEC). He argues in his paper that using it could improve the building functionality, facilitate collaboration on projects, reduce costs, improve profitability, and strengthen relationships between AEC firms and their customers.⁷³ He also explores major business, legal, and finance barriers that need to be overcome in implementing BIM practices. In a similar study, Sodangi, et. al., points out that 80% of AEC firms in the Middle East are not using BIM, and found that most smaller construction firms in Saudi Arabia have little to no awareness and understanding of BIM.⁷⁴ While Sodangi, et. al., does propose a variety of measures that could be taken to propagate the use of BIM in the construction sector (such as financial incentives, tax breaks, and licensing requirements), the first challenge to be overcome amongst construction SMEs is that of awareness, which could be raised through education requirements applied in the licensing process or through training campaigns and training specifically targeting project managers.

Regarding sustainability and social responsibility (SSR) Alotaibi, et. al., observed and discussed eleven challenges that AEC firms face towards implementing principles related to SSR, specifically in mega-construction projects. In their case study of two major construction projects, they identified increased costs as the greatest barrier to SSR implementation.⁷⁵ In order to overcome SR .0barriers in its upcoming mega-projects, the Saudi government could seek to offer SR related subsidies or incentives, or they could engage in activities such as providing trainings to project managers on the profitability and cost-saving benefits of SSR practices or creating an operational framework within which firms will be expected to operate to maintain their project contracts.

Related to social responsibility is the challenge of current energy consumption practices. Hamida, et. al., and Al-Tamimi both found in their respective studies that energy consumption in Saudi Arabia is on the rise, and that Saudi construction practices are not aligned with principles of sustainable development in

⁷¹ Hasanov, Fakhri J., Jeyhun I. Mikayilov, Muhammad Javid, Moayad Al-Rasasi, Frederick Joutz, and Mohammed B Alabdullah. "Sectoral Employment Analysis for Saudi Arabia." *Applied Economics* 53, no. 45 (September 26, 2021): 5267–80. <https://doi.org/10.1080/00036846.2021.1922590>.

⁷² Ibid.

⁷³ Alyami, Abdullah, and Muizz Sanni-Anibire. "BIM in the Saudi Arabian Construction Industry: State of the Art, Benefit and Barriers." *International Journal of Building Pathology and Adaptation* ahead-of-print (November 8, 2019). <https://doi.org/10.1108/IJBPA-08-2018-0065>.

⁷⁴ Sodangi, Mahmoud, Ahmed Salman, and Muhammad Saleem. "Building Information Modeling: Awareness Across the Subcontracting Sector of Saudi Arabian Construction Industry." *Arabian Journal for Science and Engineering* 43 (July 31, 2017). <https://doi.org/10.1007/s13369-017-2756-z>.

⁷⁵ Alotaibi, Ali, Francis Edum-Fotwe, and Andrew D. F. Price. "Critical Barriers to Social Responsibility Implementation within Mega-Construction Projects: The Case of the Kingdom of Saudi Arabia." *Sustainability* 11, no. 6 (January 2019): 1755. <https://doi.org/10.3390/su11061755>.

regards to energy consumption.^{76,77} Al-Tamimi's paper also explores the challenges faced by the construction sector in turning to sustainable energy use, and proposes that government follow up on and enforcement of energy conservation, provision of financial and other incentives in the private sector, and government support for education of engineers and technicians in sustainable design are potential solutions to this problem.⁷⁸

3.8 Finance

Development and expansion of the finance sector is likely to be one of the most important aspects of Saudi diversification goals. The 2017 IMF Financial System Stability Assessment identified dangers for the Saudi financial sector related to continued reliance on oil exports, and implicitly advocated for diversification as well as for strengthening the financial and other sectors of the Saudi economy.⁷⁹ In their review of relevant literature, Khan, et. al., points out that its importance is tied to the fact that banks are the main suppliers of capital in all other private sectors.⁸⁰ That fact makes the finance sector possibly the best sector to target if Saudi officials are seeking to create synergistic growth in other sectors.

Regarding the importance of the financial sector as a contributor to GDP, Durusu-Cifti, et. al., examined trends in and data from 40 countries to explore what factors in the financial sector have the greatest impact, and found that developing the credit market in a country contributes more to GDP growth than developing the stock market, and that creating more open, competitive, and secure financial markets will invite the presence and creation of financial intermediary firms. They specifically suggest that policy makers can accomplish this by ensuring overall economic stability in the country to instill confidence in potential investors, that measures to ensure the repayment of debts be taken, that public access to capital credit be improved, and that the rights of creditors and investors should be enforced.⁸¹

A serious challenge that Saudi officials will face as they develop policies to expand the finance sector is determining how to do so while promoting environmental sustainability, as Yang, et. al., observed that most relevant literature points towards financial development being positively correlated with environmental degradation. The main course of action they recommend overcoming this challenge is the use of strict finance regulations to punish firms without environmentally sustainable practices and to promote R&D in sustainable production.⁸²

⁷⁶ Hamida, Mohammad B., Wahhaj Ahmed, Muhammad Asif, and Faris Abdullah Almazziad. "Techno-Economic Assessment of Energy Retrofitting Educational Buildings: A Case Study in Saudi Arabia." *Sustainability* 13, no. 1 (January 2021): 179. <https://doi.org/10.3390/su13010179>.

⁷⁷ Al-Tamimi, Nedhal. "A State-of-the-Art Review of the Sustainability and Energy Efficiency of Buildings in Saudi Arabia." *Energy Efficiency*, n.d.

⁷⁸ Ibid.

⁷⁹ IMF. "KSA: Financial System Stability Assessment." Accessed May 5, 2023. <https://www.imf.org/en/Publications/CR/Issues/2017/10/05/Saudi-Arabia-Financial-System-Stability-Assessment-45316>.

⁸⁰ Khan, Shoaib, Usman Bashir, and Md. Saiful Islam. "Determinants of Capital Structure of Banks: Evidence from the Kingdom of KSA." *International Journal of Islamic and Middle Eastern Finance and Management* 14 (April 6, 2021): 268–85. <https://doi.org/10.1108/IMEFM-04-2019-0135>.

⁸¹ Durusu-Ciftci, Dilek, M. Serdar Ispir, and Hakan Yetkiner. "Financial Development and Economic Growth: Some Theory and More Evidence." *Journal of Policy Modeling* 39, no. 2 (March 1, 2017): 290–306. <https://doi.org/10.1016/j.jpolmod.2016.08.001>.

⁸² Yang, Bo, Atif Jahanger, Muhammad Usman, and Muhammad Khan. "The Dynamic Linkage between Globalization, Financial Development, Energy Utilization, and Environmental Sustainability in GCC Countries." *Environmental Science and Pollution Research* 28 (April 1, 2021): 1–21. <https://doi.org/10.1007/s11356-020-11576-4>.

In their examination of the relationship between access to broadband or internet services and financial development, Alshubiri, et. al., found that the propagation of broadband technology over the past 20 years can be positively correlated with the domestic supply of credit, and that access to internet services had a similar but weaker effect. Their review of literature supported that finding, making their argument for development of infrastructure throughout KSA to create economic growth and to help develop and strengthen its finance sector more compelling.⁸³

One leverageable strength the Saudi finance sector has is that, as Khan, et. al., found, its banks are highly leveraged, meaning that they have a high ratio of capital assets to debts.⁸⁴ This generally means that a bank is more likely to remain stable and solvent in a crisis, but also suggests that it may be holding onto capital that it could be investing in the growing economy, which also limits the profits the banks are bringing in.⁸⁵ However, Khan, et. al., seems to suggest that this might not be the case for Saudi banks since they have a low rate of retained earnings.⁸⁶ If the inability to retain earnings is due to corruption or other illegal activities, further government investment in enforcement of laws and investigation of corruption could help solve that issue. However, if it is instead related to unprofitable investing, perhaps reforms in bank practices carried out via managerial training would be in order. Khan, et. al., developed their study with that intent in mind, hoping that providing bank managers with information regarding factors that are related to banking profitability would equip them to better make bank-specific decisions.⁸⁷ Further studies on banking profitability in KSA and dissemination of their findings to bank managers would enable them to make bank-specific decisions that would likely be more effective than broad and sweeping policy actions. Whether there is a need for addressing corruption or for providing further education to improve outcomes, both courses of action align well with Vision 2030 goals and will pave the way for growth in the financial sector to serve as a catalyst for growth in other sectors.

4. Discussion

Many of the key sectors of Vision 2030 have a harmonious relationship. Mining for silicon can facilitate the expansion of the manufacturing sector with the production of solar panels, the use of which will contribute to a greener, more sustainable energy sector that is less reliant on oil, and the export of which could put KSA on the map in the international clean energy sector. Expanding the petrochemical industry can take advantage of the fact that KSA already has a booming oil industry and create opportunities for that oil to be used outside of energy exports. Improvements in the finance sector will significantly impact all other sectors, by increasing available capital for growth. Just as tourism's spillover effects offer retail, hospitality, construction, and finance a boost from foreign consumers.

While all sectors reviewed are symbiotic, one truly ideal sector to focus on, is construction. Since Saudi Vision 2030 relies so heavily on infrastructure development projects, it is no wonder that all explored sectors raise the issue of slow, often stalled, and mismanaged construction operations. If all eight sectors feel the strain of a slow-moving permitting approval process, improper management of

⁸³ Alshubiri, Faris, Syed Ahsan Jamil, and Mohamed Elheddad. "The Impact of ICT on Financial Development: Empirical Evidence from the Gulf Cooperation Council Countries." *International Journal of Engineering Business Management* 11 (January 1, 2019): 1847979019870670. <https://doi.org/10.1177/1847979019870670>.

⁸⁴ Khan, Shoaib, Usman Bashir, and Md. Saiful Islam. "Determinants of Capital Structure of Banks: Evidence from the Kingdom of KSA." *International Journal of Islamic and Middle Eastern Finance and Management* 14 (April 6, 2021): 268–85. <https://doi.org/10.1108/IMEFM-04-2019-0135>.

⁸⁵ Jain, Siddharth. "Leverage Ratios for Banks." *WallStreetMojo* (blog), June 27, 2019. <https://www.wallstreetmojo.com/leverage-ratios-for-banks/>.

⁸⁶ Khan, Shoaib, Usman Bashir, and Md. Saiful Islam. "Determinants of Capital Structure of Banks: Evidence from the Kingdom of KSA." *International Journal of Islamic and Middle Eastern Finance and Management* 14 (April 6, 2021): 268–85. <https://doi.org/10.1108/IMEFM-04-2019-0135>.

⁸⁷ *Ibid.*

construction time, and lack of resources, then those things must be a symptom of the larger issue. All explored sectors converge on construction and rely on completing this development. This is an incredible risk to the viability of Saudi's vision and needs addressing.

Additionally, engaging in construction products creates a demand for manufactured goods, and if Saudi nationals are put to work supplying those products, it creates jobs. The construction of technical schools would provide more formal space for education and training for workers in or aspiring to join the construction, mining, healthcare, retail, and finance sectors. Construction of infrastructure for high-level internet (5G+), improved transportation, and more robust technological centers (data storage) would benefit many industries by building cheaper and more reliable supply chains, minimizing production shortages, and increasing information sharing.

Implementing a focus on increased regulation and best practice would be two common threads that lend a risk adverse response to increasing vitals sectors such as construction. As infrastructure projects are on tighter and tighter deadlines, corners can be skipped, and tragedy can wreak havoc on a project. A particularly loud example of this is a recent tragedy experienced in the SA construction industry, where 107 people were killed in 2015 by a falling construction crane in the Grand Mosque of Mecca. Reports indicated that unattended cranes put citizens and visiting pilgrims in danger.⁸⁸ Massive construction of Mecca is still underway to increase Mecca's access for more pilgrims; however, regulations and safety should be placed before the kingdom's ambitious deadlines. Through a PIMAC (detailed in the healthcare sector) style system, private investment and construction orders can be bid for review, streamlining, and protecting potential blowbacks from hasty development.

Additional adjustments and improvements to standards and practices could be made in construction and other sectors. For example, BIM methods and social responsibility practices could also be employed throughout the Saudi construction industry to improve construction outcomes related to safety, reliability, and profitability. Our sector review also found that Saudi manufacturing practices need to be leaner. Upcoming retailers and manufacturers could use better training in managing culture and scaling up their operations. Banking outcomes could be drastically improved by providing Saudi bankers with information detailing what is working in other banks in KSA and the rest of the GCC countries. If Saudi officials can develop ways to facilitate and encourage best practices and better standards in any of these sectors, they will be better equipped to employ those strategies in the other emerging sectors.

In most sectors, we also discussed the increased benefits of privatization. Privatization, or the process of transferring ownership of state-controlled enterprises to private companies, has many potential benefits for KSA. Privatization brings with it increased efficiency. Since private companies are profit-driven, they will likely focus on building strong SOPs and innovation methods to increase profitability. One issue with keeping most industries as state-owned is that public entities function under a more monopolistic or bureaucratic environment where a diminished level of competition can breed complacency, overlook innovation, and result in inefficiencies with higher costs. Publicly run enterprises often contend with larger missions of state-focused policy and national security. These strategies of focus can often conflict with a profit-driven focus. Privatization, on the other hand, generates revenue for the host country while keeping the necessity for profit maximization in a climate of competition, improving the overall quality and potentially promoting social welfare.

Privatization removes the strain of operating so many public entities and allows the government to focus on essential services. KSA could—and needs to—develop more robust regulations bureaus to ensure private companies still operate in the public interest. Removing the day-to-day operations of a

⁸⁸ Middle East Construction News. “Mecca Crane Collapse: Lessons from the Tragedy,” October 28, 2015. <https://meconstructionnews.com/10298/mecca-crane-collapse-lessons-from-the-tragedy>.

business to private entities would allow additional accountability for these sectors. Take mining, for example. As a public mining company, the only accountability for proper transparency and good governance comes from its leadership. In a climate like KSA, dynasties can fight, and act and conduct business based solely on the personal interests of whoever is in charge. Private companies, however, have shareholders, which function as an additional measure of accountability. Shareholders can remove leadership or redirect operations if they need to be in alignment with market viability. Privatization of the mining sector, if combined with imposed regulations relating to environmental sustainability, would push mining firms to reduce costs and be more competitive exporters not only in their regular activities but also in their efforts to promote sustainability. Other sectors would benefit from privatization in similar ways.

Shifting toward privatization does open the issue of aligning private and public interest, especially in notoriously misaligned sectors such as mining or finance. However, what the KSA aims to do is bring more privatization to their historically over-inflated public sector. To succeed in that blend of public and private a strong emphasis on outlining and drafting corporate governance regulations that will ensure shareholder authority and require adherence to new sustainability laws and regulations. One initial way to ensure adherence is to build a robust reporting mechanism to disclose information to shareholders and the public on financial as well as non-financial reporting on environmental, social, and governance (ESG) matters. As a country the KSA could draft industry ESG metrics that private and public firms will have to align to. Such prioritization of key targets can be further enmeshed if firms tie executive compensation to ESG targets, linking top-company executives to the direct performance of sustainable and responsible practices alongside financial goals.

If KSA is to become a regional and international hub of industry and a leader in non-oil exports, examples of proven success would be useful. KSA can use its tightly controlled political structure to subsidize and direct its growth by emulating East Asian nations that have employed similar state tactics with substantial success. Wade showed how East Asian nations, such as South Korea, rapidly expanded their industry through economic liberalization. He showed how South Korea used intelligent technocratic control of incentives to stress-test the fittest firms in desired exporting industries. For example, Wade describes that South Korea "not only actively promotes the growth of the business groups, it also disciplines their use of subsidies and other supports, rewarding those who use subsidies' well' with further help and withdrawing support from those who do not."⁸⁹ KSA is in sweet-spot in its ambition to rapidly expand to export non-oil goods because it still has the profits from oil to bolster and expand other sectors. South Korea can offer a model of technocratic growth where funneled directing incentives to exporting firms and industries that make the best use of them will ensure that money ends up in the hands of the people and firms that will produce the greatest effect.

Another major task is integrating the Saudi citizenry into the government's vision for growth. Historically, Saudi citizens have enjoyed the unusual benefit of oil riches and political stability. No income taxes and citizen stipends for quality of life mean many Saudi citizens don't feel the necessity to make ends meet. However, as Vision 2030 hopes to incorporate greater Saudi participation, it reviews how it can achieve this. Further, the Saudi workforce can be better integrated in most sectors we reviewed. Retail, tourism, and construction are the sectors with the lowest involvement. By improving the healthcare sector, the risks of injury associated with participating in construction will be addressed and reduced, as will the risks of contracting illness in the tourism and retail sectors, in which there are high levels of interaction between people. These improvements would cut down the disincentives to participate in these fields.

Our sectoral review exposes another critical need— a better-educated, better-trained workforce, especially in management. Technical schools and colleges in KSA would make a great difference in that

⁸⁹ Wade, Robert. "East Asia's Economic Success: Conflicting Perspectives, Partial Insights, Shaky Evidence," 285.

field. In the same vein, an overall improvement in the quality and standards of education would be beneficial. KSA employs incredible investments in infrastructure, design, and especially talent acquisition. Take sports, a subsector of leisure-related industries, where incredible investments to attract international athletes are succeeding in building attractive team rosters, potentially winning over new fans, and building welcoming invitations for emerging athletes to begin their careers. If KSA was to have the same fervor for acquiring athletes⁹⁰ as it does for distinguished faculty for its universities, then international recognition would build a climate for improved scholars and alumni of future KSA industry leaders. Unlike oil, knowledge is a resource that multiplies with use. If KSA sets its goal on improving the quality of educators, then rippling effects could be enjoyed for generations to come. However, if workforce engagement remains low after providing education for as many Saudi workers as possible, enacting some form of employment program, such as quotas or tying citizenry stipends to employment. On the other hand, if KSA achieves the levels of employment and diversification needed for a stable economy, the support programs could easily be phased out entirely. In either case, generating an economy that can meaningfully absorb a population in which nearly 70% are under the age of 35 is a Herculean task.

5. Conclusion

Dizzying numbers of record-breaking mega-projects, including but not limited to flying cars and ski resorts in the deserts of Arabia, leave many wondering if all this work towards the Saudi Vision 2030 will dissipate into the mirage of ambition. MbS is moving his country at meteoric speeds that no one has seen before. After years of booming oil sales, MbS injects its economy with non-oil sector development in hopes of diversified growth and steady returns. From what has been explored, the growth and progress in the sectors we have discussed seem viable to consider the project a success. Only a few countries have been endowed with the ability to produce such effects. Authoritarian modernism appears to move at speeds unlike liberal democracy. A new form of state control could turn cronyism into a benefactor for growth. It could transform the KSA economy from being one fighting against a resource curse into one that enjoys the advantages of a resource blessing.

Political order has rattled the static cage of Saudi's historically stable family bureaucracy. Princes are cast off to luxury hotel prisons, and religious police no longer stalk the streets with sticks during Ramadan. And what about Saudi citizens? History reminds us that this region has endured past authoritarians and monarchs (soon MbS will be king); they carried quick change and brought unforeseen shifts in the social order.

Mohammad Reza Shah of the Pahlavi dynasty in Iran received similar fanfare to MbS. Disruption in democratization in 1953 emboldened Mohammad Reza further.⁹¹ In 1963, Mohammad Reza Shah announced his White Revolution. Economic liberalization, educational freedom, increased quality of life, and dramatic changes from an increasingly globalization-minded populace led Iranians to question if there was more to be had than an outdated monarchy.⁹² Iranian clergy had been sidelined and abused since Mohammad Reza Shah's father built his crown. Yet the muzzled mouths of a closed-off political system led Iranians to seek anyone who could speak. The strongest opponent to the Pahlavi monarchy was the exiled Clerical class. The calls of Iranians were answered. The year 1979 brought the fall of the Pahlavi monarchy. Iranians believed a better future was in grasp.

⁹⁰ updated, Fergus Bisset. "What Do LIV Golfers Get Paid?" *Golf Monthly Magazine*, June 10, 2022. <https://www.golfmonthly.com/news/how-much-are-liv-players-being-paid>.

⁹¹ Amanat, Abbas. *Iran a Modern History*. Yale University Press, 2017.

⁹² Ibid.

Unbeknownst to Iranians, using the Clergy to voice their needs for political freedom opened the door to a new form of authoritarian domination. Ayatollah Khomeini quickly grasped the power and established the Shia Islamic totalitarian rule. We cannot say that KSA is in the same era or setting as Iran of the 1970s, but it does share the same risks and ramifications in what it has to lose.

The Kingdom of Saudi Arabia has a climate of success and significant momentum. Let us hope economic diversification brings a rewriting of their rentier statehood and undoing the resource curse. Let us hope it brings prosperity and development for the Saudi citizens, who are the inheritors of its outcome. Arabia and modernity have more than shifting landscapes in common. They share the future.

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