THE IMPACT OF ENTREPRENEURSHIP ON SAUDI ARABIA'S ECONOMY

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ABSTRACT

Hidy Akila: The Impact of Entrepreneurship on Saudi Arabia's Economy
(Under the direction of Maryann Feldman)

Saudi Arabia is economically evolving as they diversify their economy away from oil because of scarcity concerns. Understanding the impact that entrepreneurship has on their economy is valuable considering Saudi Arabia released Vision 2030, which is a set of entrepreneurial-driven initiatives that aims to diversify their economy. My research supplements existing research surrounding this topic by examining the recent outcomes of entrepreneurship on the economy. I evaluate entrepreneurship's impact by measuring the relationship between economic indicators and entrepreneurship. My quantitative and qualitative findings show that entrepreneurship increased since 2008 and is a significant driver of GDP and women employment rates. Data analysis also proved that GDP is largely driven by increases in private and public non-oil sector growth. Consequently, my findings reveal that increased entrepreneurship benefits economic advancement and could be used within policy implementations to improve economic indicators.

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INTRODUCTION

Saudi Arabia experienced a major turning point in 2016 as the Kingdom of Saudi Arabia announced its Vision 2030 launch. Vision 2030 is a set of nation-wide policies placing a national emphasis on increasing entrepreneurship efforts and formally established it as the future of their economy. The Saudi Arabian government focused on increasing entrepreneurial activity as a means for diversification because of declining oil supplies. The impact entrepreneurship can have on redefining Saudi Arabia's economy therefore became increasingly important for policy makers over the past few years. Given the drastic changes their economy is undergoing, my thesis aims to examine the following: how will entrepreneurship affect Saudi Arabia's economy? This section will provide further context of the need for entrepreneurship, its historical context in Saudi Arabia and the economic trends that led to the Kingdom needing economic diversification.

Entrepreneurship's Role in Advancing Economies

Countries all over the world now use entrepreneurship as their stepping stone to economic growth and success. According to the Ahmad and Hoffman (2007), entrepreneurial activity is defined as "the enterprising human action in pursuit of the generation of value, through the creation or expansion of economic activity, by identifying and exploiting new products, processes or markets" (p.4).

Ahmad and Hoffman's (2007) definition of entrepreneurship mentions concepts that are embedded in human history; business ownership laid the economic foundations for society and

enabled individuals to leverage their talents in various industries to generate income. The concept of entrepreneurship especially gained attention after the world saw many innovations that arose from the United States' entrepreneurial ecosystems such as Silicon Valley and the Research Triangle Park, globally renown innovation hotspots (Wessner et al., 2012). Entrepreneurship's contributions to the United States' proves that it can reinvigorate and introduce new sectors to an economy.

Countries leverage entrepreneurship as a tool for economic growth and diversification because of the advancements accompanying it within every industry. Countries need to constantly innovate to remain economically competitive on a global scope, especially with the rise of technology today (Wesner et al., 2012). Supportive entrepreneurial cultures and policies offer a creative outlet for individuals to create those innovations necessary for economic advancements. Saudi Arabia consequently aims to strengthen their entrepreneurial culture to reconstruct its economy to sustain their future economy.

Saudi Arabia has abundant monetary resources to support their goal of creating a supportive entrepreneurial society. The government expanded upon their Public Investment Fund, a government-sponsored wealth fund, to include funding required for entrepreneurial activities that Vision 2030 encourages (Habibi, 2019). Habibi (2019) expected funds to reach 450 billion dollars by 2020, a 200 billion dollar increase in the fund since 2015. Having more investment funds offers an attractive ecosystem in which entrepreneurship can fully flourish in the economy.

Investment funds, while helpful to supporting Vision 2030, will not suffice in building a favorable entrepreneurial landscape on its own. In fact, even their advantageous oil supply is not adequate to sustainable their economic growth. Nijkamp (2003) supports this notion, explaining

that comparative advantage alone no longer satisfies the needs of an increasingly globalized and innovation-driven economy. Education, business culture and technology are additional components needed to remain economically competitive and influence the extent to which entrepreneurship can favorably benefit an economy. Consequently, Saudi Arabia created a Vision 2030 plan, which is a government-funded collection of 96 initiatives focused on innovation and diversification to expand their economy (Saudi Vision 2030, n.d.).

History of Entrepreneurship in Saudi Arabia

Saudi Arabia's strategic location between Asia and Africa as well as its religious significance for Islam made it a profitable economy historically. Their economy however often fluctuated in response to changes in oil exports. Increased oil exports throughout the 1970's and 1980's propelled Saudi Arabia at the forefront of global economics and decision-making in regards to petroleum, allowing their economy to thrive (Ochsenwald et al., 2021). However, their oil dependence also meant that they suffered when the industry did. Recent 2019 data suggests OPEC oil production cuts led to an 80 percent decrease in Saudi Arabia's economic growth from 2018 to 2019 (MarketLine, 2020). The cyclical nature of the oil industry encouraged Saudi Arabia to divert attention towards entrepreneurship, which offered an attractive opportunity to lessen their reliance on oil.

Saudi Arabians were generally hesitant about pursuing entrepreneurship despite its opportunities. Fear of failure and risk was a major aspect deterring individuals from starting a business and is even negatively associated with the likelihood of starting a business according to Abu Bakar et al.'s (2017) study. Recently however, Saudi Arabia's fear from failure rate decreased between 2018 and 2019 (GEM, 2019). Although it remains slightly higher than the global average, the decline in fear signals their society is becoming more accepting of it. Lower

rates of fear among Saudi Arabians also suggests that their government's initiatives to increase entrepreneurial activity is slowly encouraging the population.

Religious Ties

Religion shapes many aspects of Saudi Arabia's business landscape since their laws are based on Islam. Saudi Arabia's government operates under Shari'a law, which dictates business decisions involving matters such as investments, loans and properties (Cassell et al., 2012). Foreign businesses are also subject to Shari'a law and must abide by them no matter their origin (Chedrawe et al., 2020). Restrictions on business related activities such as interest poses a challenge to local and international entrepreneurs, however Cassell et al. (2012) explained that Saudi Arabia made positive strides towards revising a few laws regarding topics previously dictated by religion such as registering property, receiving credit and protecting investors. According to Farag's (2019) article however, Neom (Saudi Arabia's future epicenter of entrepreneurship) will have its own set of laws and regulations that are not yet released to the public. Looking forward, Saudi Arabia seems interested in striking a balance between their traditional Islamic governance mechanisms and creating a business-friendly environment where international interests can also thrive. If Shari'a law challenged entrepreneurs before, these new policies in select areas will hopefully further encourage entrepreneurship among internationals and locals alike.

Cultural Ties

Culture is an additional factor influencing Saudi Arabia's economy since it affects their workforce composition. Women were rarely seen in the workplace up until a few years ago. Women often focus their responsibilities on their household and children as a tradition in Arab culture. Even women who wanted to work were deterred from a lack of women working in the first place. The rise of entrepreneurship however, offers women the opportunity to maintain

within cultural boundaries while also pursuing their own interests with entrepreneurship (Cole, 2011; Sabri, 2001 as cited in Basaffar et al., 2018). In fact, the GEM (2019) report indicates that for the first time in Saudi Arabian history, women are more active in entrepreneurship than men.

Although interactions between men and women were limited in the past due to religious and cultural reasons, Saudi Arabia now works towards increasing women involvement in the economy. Over the past few years, they made important strides in offering women more rights enabling them to contribute to the economy. They now allow women to vote and can even be elected to the national government, which was previously forbidden (Alrefei, 2021). Incorporating women into the Saudi economy would benefit their country and aid in lowering unemployment rates considering women comprise 42% of their population according to the World Bank (n.d.). Women's' rights improvements in Saudi Arabia indicates that the government is trying to empower Arab women by increasing their involvement in the community through work and citizen duties.

Economic Trends

The historical context of entrepreneurship helps explain the economic landscape of Saudi Arabia. Reliance on oil however explains their economy's fluctuations. Saudi Arabia implemented numerous policies to diversify their economy with Arab crude oil prices decreasing by 62 percent since 2012 (Alkhathlan et al., 2020). Although Saudi Arabia is notable for their oil industry, other prominent segments in their economy include government services, manufacturing and financial services (General Authority for Statistics, 2019). In fact, Saudi Arabia's General Authority of Statistics' report (2019) announced the private (non-oil) sector drove much of the growth they experienced in the third quarter of 2020. The Saudi Arabian government continues pushing for growth in the non-oil sector by introducing economic

initiatives such as Vision 2030, which emphasizes the importance and power of economic diversification.

Unemployment plagued Saudi Arabia historically as their economy continued fluctuating with oil prices. In the 1990's, unemployment increased because of a rise in the population thanks to government policies that supported having larger families (Ochsenwald et al., 2021). Increased oil prices in the 2000's ultimately saved their economy (Ochsenwald et al., 2021). With the recent oil cuts however, Saudi Arabia cannot depend on the oil industry to support them should unemployment rates rise again.

High youth unemployment also contributed to their unemployment rates. Recently however, the government implemented various initiatives to enhance educational opportunities. According to the Ministry of Education in Saudi Arabia (n.d.), Saudi Arabia launched the King Abdullah Scholarship Program (KASP), which sponsored 130,000 Saudi Arabian students to study abroad. Upon graduating now, youth often resort to entrepreneurship to make a living since they do not rely on the highly fluctuating job market (Bokhari et al., 2012). Therefore, the Kingdom now uses entrepreneurship as a tool to fight unemployment and leverages entrepreneurial education to fuel these endeavors.

Saudi Arabia's economy continues growing despite unemployment challenges. MarketLine (2020) suggests the GDP growth rate between 2021 and 2024 will be 2.73%. This figure is higher than 2018 and 2019's growth rates at 2.48% and .48% respectively, which illustrates Saudi Arabia could still thrive by diversifying their economy (MarketLine, 2020). Looking forward, Saudi Arabia hopes Vision 2030 will pave the way for more economic growth opportunities.

Vision 2030

Vision 2030 is a government plan launched in 2016 created to reinvigorate Saudi Arabia's economy. The initiative included goals such as creating 3 new cities, increasing entrepreneurial education and increasing investment funds for entrepreneurial endeavors. Their vision especially focuses on increasing small and medium sized enterprise contributions by 15%, which currently comprises 20% of their economy (Kingdom of Saudi Arabia, n.d.). The Kingdom of Saudi Arabia (n.d.) also hope Vision 2030 will increase women employment rates by 8%. Looking forward, Saudi Arabia expects Vision 2030 to fuel the next generations' economy and success using entrepreneurship and innovation.

The goals set forth by Vision 2030 require adequate funding in order to succeed. Saudi Arabia recognized this early on and established the Public Investment Fund (PIF), which their government claims will become the largest wealth fund globally (Kingdom of Saudi Arabia, n.d.). The purpose of this fund is to support strategic sectors requiring extensive investments, which the private sector is not as financially well equipped to handle (Kingdom of Saudi Arabia, n.d.). The PIF therefore lessens the burden of investments on the private sector and paves the pathway for a greater link between the private and public sector to work together.

Saudi Arabia outlines a few of their PIF investment strategies involved in Vision 2030. The government intends to heavily invest in the tourism industry by making it more easily accessible in terms of visa procedures and establishing new tourist attractions (Kingdom of Saudi Arabia, n.d.). Most notably, The Kingdom of Saudi Arabia (n.d.) also mentioned their hopes to increase their investments in the digital economy and technology. Specifically establishing Neom, a technology hub, will supplement this strategy. Although they intend to diversify their economy, they do still have plans to also dedicate investments towards stabilizing and growing

their oil and petroleum industry. Recognizing the value their country derives from oil, they aim to double gas production and establish a national gas distribution network (Kingdom of Saudi Arabia, n.d.). Their goals therefore consist of introducing other streams of revenue for their economy while also remaining the global leader in oil production.

Previous research highlighted the impact of entrepreneurship on various industries, as well as the economy. However, little research has provided (1) the numerical impact of entrepreneurship on the economy, (2) recent insights of entrepreneurship's impact and (3) explanations to the trends observed in quantitative data using qualitative data. A major gap in research surrounding this topic exists in regards to quantifying the impact and providing a recent analysis of the landscape.

I hope my research will provide a recent account of the entrepreneurial ecosystem of Saudi Arabia and entrepreneurship's impact on the economy between 2008 and 2018. I will do this using a mixed-methods approach; combining data analytics with qualitative analysis from interviews will provide a better understanding of the entrepreneurial landscape. Evaluating the impact entrepreneurship had on their economy between 2008 and 2018 will be useful for future policy making in Saudi Arabia, but could also serve as a blueprint for other countries looking to grow their economy.

LITERATURE REVIEW

The Saudi Arabian government implemented numerous entrepreneurial initiatives to improve their economy throughout the past 12 years. This literature review examines the relationship between research literature written about entrepreneurship's impact on Saudi Arabia's economy. Throughout the review, I will discuss entrepreneurship's impact on Saudi Arabian economy in the following years: 1970-2000, 2008-2019 and 2020-the future. I chose to evaluate entrepreneurship's impact between 1970-2000 because research shows these decades laid the foundations of entrepreneurship in Saudi Arabia. I did not include research regarding entrepreneurship between 2000-2008 because little information is available about this time period. Instead, I will evaluate literature written about entrepreneurship's impact between 2008-2019 to analyze more recent research. Lastly, I examine the current impact that entrepreneurship has on the economy, in addition to future expected impacts. I will then conclude this literature review by discussing the importance of my research in relation to prior literature.

Entrepreneurship's Impact Between 1970-2000

The Middle East's entrepreneurial history provides an important foundation for understanding entrepreneurial trends in Saudi Arabia and their impact on the economy. Literature emphasizes the flexibility and stability that private entrepreneurial endeavors offered, which attracted Saudi Arabian citizens. Business cycles especially played an influential role in entrepreneurship based on literature surrounding entrepreneurship's history. Recessions during the cycles led companies to lay off employees throughout these periods (Bruton, Ahlstrom & Obloj, 2008 as cited in Chalhoub, 2011). Consequently, citizens turned to entrepreneurship to

feed their families according to Sonfield and Lussier (2004, as cited in Chalhoub, 2011). Those turning to entrepreneurship were met with increased financial support; Oukil (2011) explained that increased investments towards technology-based businesses, which were once considered risky, helped fund small and medium-sized enterprises (SMEs). Consequently, increased employment rates helped recover Saudi Arabia's economy.

Since the 1970's, research indicates that entrepreneurial activity only continued to increase. The economic landscape in the past few decades changed with an increasingly globalized economy (Chalhoub, 2011). Globalization enabled smaller enterprises to compete with large-scale corporations because of increased access to resources according to Chalhoub's (2011) research. Increased globalization therefore lifted the barriers that once prevented SMEs from thriving. This trend alters the composition of the economy by increasing the number of SMEs in the Saudi Arabian economy.

Entrepreneurship's Impact Between 2008-2019

Research about Saudi Arabia's economy between 2008-2019 indicates that entrepreneurship played a role in the economy, which was in part due to diversification and entrepreneurial initiatives. Saudi Arabia is a global leader in oil production because of its geographic competitive advantage. Their economy is heavily dependent on this industry, accounting for 68% of their revenue in 2018 according to KPMG's (2018) research. With this dependence, however, comes risk. Marketline's (2020) more recent research aligns with KPMG's (2018) work, suggesting that declining oil prices challenged Saudi Arabia. Faced with this obstacle, Saudi Arabia looked to non-oil sources of revenue to grow and diversify their economy.

Saudi Arabia created Vision 2030 as a result of their concern for diversification. Launched in 2016, research indicates that Vision 2030 already started impacting the economy as

a result of the increased entrepreneurial initiatives. Esmail's (2018) research defines Vision 2030 as a government initiative aimed to foster an economy with greater industry diversification and a stronger relationship with the private sector (p. 192). Some of its goals include the following: increasing SMEs contribution to the gross domestic product (GDP) up to 35%, encouraging investments in non-oil industries and increasing women employment (Marketline, 2020).

This decade is the first time in history where citizens are encouraged to disrupt existing industries on a national scale and continue disrupting them through entrepreneurship. Literature argues increased entrepreneurship especially impacts employment rates among women and the private sector.

Women's Employment Rates

Saudi Arabian economics and culture are intertwined. Women followed Arab culture by often staying home while men were working. Recently, however, women are becoming more liberalized. According to Basaffar et al.'s (2018) work, most Saudi Arabian women are already well educated. About 55.8% of university students are women, which is a 5% increase since 2015 (General Authority for Statistics, 2020). Although their education rate is high, women only represent 16% of the Saudi Arabian workforce (GEM, 2019). Literature suggests the issue at hand therefore involves providing employment opportunities to women, who tend to already have an education but lack encouragement to work after they graduate.

Entrepreneurship is slowly breaking this cultural barrier of employment among women. Earlier research explains that businesswomen in Saudi Arabia were allowed to vote in various chambers to elect board members starting in 2004 (Danish & Smith, 2012). Since then, families also supported entrepreneurial women by providing "information channels and family norms" (Welsh et al., 2014, p. 759). Most recently, the government's Vision 2030 initiative outlined that it intends on increasing employment rates among women by 8% (Saudi Vision 2030, n.d.).

Familial support coupled with government initiatives offers an opportunity for women to work by owning their own businesses (Basaffar et al., 2018).

The Saudi Arabian government created many entrepreneurial initiatives to continue empowering women in entrepreneurship. Saudi Arabia established the Khadija Bint Khuwailed center at Jeddah Chamber of Commerce and Industry (a lobbying group) to better guide women in operating their businesses and offering advice on their obstacles (Rahutallah Khan, 2016). Khan (2020) also mentions that Saudi Arabia tries supporting women by providing them training opportunities and workshops. Their uplifting initiatives led to women accounting for about 45% of business ownership in Saudi Arabia in 2019 (GEM, 2019). Women owning or working for SMEs are especially benefitting from recent government policies since Vision 2030 focuses on growing both women employment and SMEs' contribution.

Entrepreneurial support offers women the opportunity to leverage their creativity and passions through business endeavors. The Global Entrepreneurship Monitor (GEM) 2019 report indicated most entrepreneurial women own businesses in the consumer sector. Women previously sold products relating to the consumer sector through bazaars (outlets), but now conduct much of their businesses online (Basaffar et al.'s, 2018). In fact, GEM's 2019 report indicated that digital platforms enable women to work at their own leisure, from their desired locations and with little financial investment (GEM, 2019). Consequently, the flexibility and creativity that entrepreneurship offers leads to lowering unemployment rates among women and increasing economic diversification.

Literature indicates that many challenges remain for women despite their increased employment rate. Welsh et al.'s (2014) work explains that 27% of women quit their entrepreneurial endeavors as a result of its intense time commitment. Women especially

experience challenges in maintaining a balance between work and family life because society still expects women to fulfill more traditional duties (Khan, 2020). Financial support is also an obstacle for women (Welsh et al., 2014). Only 12% of women indicated they benefited from government support in Welsh et al.'s (2014) study, which consisted of responses from 164 women. Recent research from the GEM (2019) report aligns with Welsh et al.'s (2014) findings, claiming that 67% of women rely on funding from their family since they do not have access to government resources. Entrepreneurship literature therefore points to areas of improvement in their government legislation needed to ensure that women can thrive in favorable entrepreneurial environments.

Despite the challenges women face in entrepreneurial activity, research overall indicates that entrepreneurship heavily contributed to increasing employment rates among women. Government initiatives paired with familial support further encourage women to begin their own entrepreneurial endeavors to continue their economic contributions.

Private Sector Impact

Historical entrepreneurship from the late 1900's built a solid foundation for SMEs in the private sector to continue thriving. Research argues that entrepreneurship shaped the private sector recently because the government geared most of their new initiatives to support them. However, their support for SMEs is within reason since they operate more efficiently compared to larger companies (Williams, 1999; Kaufmann Foundation, 2002; Bisoux, 2002, as cited in Chalhoub, 2011). The rise in technology only further favors SMEs as the field continues advancing daily. Rahutallah Khan (2016) also supports Chalhoub's (2011) article and even refers to SMEs as the "growth engine" of entrepreneurship (p. 69).

Government initiatives and funding are essential in helping SMEs to continue growing based on research in this field. Alkhaldi et al.'s (2018) work found that formal and informal

institutional support benefit startups' success. Institutional support is necessary considering SMEs made up 56% of Saudi Arabia's third quarter revenue in 2019 (General Authority for Statistics, 2019). The government most commonly supports SMEs in the forms of finance and consulting (Alkhaldi et al., 2018). Alkhaldi et al.'s (2018) work stresses the need for more government initiatives supporting SMEs, which is especially important since Vision 2030 plans to grow SMEs contributions to the economy by 15% (Saudi Vision 2030, n.d.).

Entrepreneurship is also relevant in the realm of public policy. Companies that should be considered public such as electricity, water and sanitation are instead privatized and exploit citizens for their money (Sulphey & Alkahtani, 2017). However, Sulphey and Alkahtani's (2017) work shows that entrepreneurship provides a solution to this problem by introducing and encouraging more competition in the private sector. Competition in this sector will ultimately free citizens that struggled from higher utility prices.

Entrepreneurship's Impact In 2020 and Beyond

Saudi Arabia continues to diversify its economy as Vision 2030 nears its completion. Because little research surrounding the current impact of entrepreneurship exists, I will instead discuss industries that are expected to advance as a result of entrepreneurship. Industry composition remains relevant to my research considering it outlines the direction the economy is moving towards. I will then evaluate the impact that Vision 2030 will have on Saudi Arabia's economy moving forward because it involves many projects aimed at increasing entrepreneurial activities.

Industry Composition Impact

Research shows that the economy's industry composition shifts as a result of increased entrepreneurship. Literature regarding industrial impact generally shows government initiatives help strengthen existing industries while also introducing more technology-based industries.

Saudi Arabia's strategy to economic diversification involves recognizing existing industries that have potential according to research. Tourism, manufacturing and financing are industries that entrepreneurship will heavily impact (Esmail, 2018). Though written in 2018, Esmail's work remains highly relevant and accurate as many of the top 20 future jobs predicted by Alghamdi and Alghamdi (2020) relate to fields that align with Esmail's (2018) research.

Tourism is an influential sector for Saudi Arabia to focus on because they already attract millions of Muslims each year for Hajj. Although coming for religious reasons, many travel around after this pilgrimage. Consequently, Saudi Arabia wants to encourage people to continue touring the rest of Saudi Arabia as well (Esmail, 2018). A few of the top 20 future jobs predicted by Alghamdi and Alghamdi (2020) support Esmail's (2018) argument, such as restaurant designers and logistics support experts needed for increased tourism.

Technology advancement within the manufacturing industry also fuels entrepreneurial activity. According to Esmail's (2018) work, the manufacturing industry will grow increasingly important as Saudi Arabia encourages entrepreneurial endeavors in this field. Increased entrepreneurship in this field already led to a 31% increase in factories as of 2018 (Esmail, 2018). Alghamdi and Alghamdi (2020) even state the manufacturing industry grew as the food sector's demand for robots grew. Because of their preference for robots, manufacturing industries increased their production by 10 to 20% (Alghamdi & Alghamdi, 2020).

The rise of the manufacturing industry creates many opportunities for employment in the factories. Esmail (2018) explains Saudi Arabia could leverage this industry most because they have the necessary human and natural resources to meet market needs. Consequently, the manufacturing sector offers increased employment opportunities. Many predicted jobs align with the roles necessary to compete in this sector including: software engineers, information security

specialists and digital manufacturing engineers (Alghamdi & Alghamdi, 2020). However, increased manufacturing has its drawbacks. People are often marginalized as more of their jobs become automated (Alghamdi & Alghamdi, 2020). Therefore, entrepreneurship in this sector could regress some of the progress Saudi Arabia made in their employment rates.

Literature also shows the financial sector has a symbiotic relationship with the economy in that the more the financial sector can grow, the more that the economy will grow, which feeds back to growing the financial sector. Esmail's (2018) work therefore predicts the financial sector is the third industry that has an influential role in advancing economic growth. Activities in the finance sector such as investments, money transfers and financial planning all ultimately contribute to investing in and accelerating economic growth (Esmail, 2018). Alghamdi and Alghamdi (2020) support this sector's importance by explaining that creating new sources of financing reduces the pressure of government support and offers varied opportunities for people to finance their businesses. Entrepreneurship impacts this sector as more SMEs look to fund their business endeavors (Esmail, 2018). Therefore, advancement in this field plays a pivotal role in economic diversification by providing entrepreneurs easier access to funding their endeavors.

Vision 2030 Impacts

The most current literature suggests that entrepreneurship will continue playing a pivotal role in impacting Saudi Arabia's economy. Researchers believe Vision 2030 will fuel Saudi Arabia's entrepreneurial drive and guide the country into the new era of diversification. These opportunities are due to the series of initiatives set forth by the Saudi government including: the NEOM, Red Sea and Qiddaya project (Habibi, 2019). The large scale projects along with financial initiatives will aid in creating 3 million job opportunities (Alghamdi & Alghamdi, 2020).

The NEOM project is Saudi Arabia's most well-known and largest project yet. Research about NEOM indicates that Saudi Arabia aims to create the next Silicon Valley. Saudi Arabia wants to stress the establishment of NEOM as a technology-based city focused on advancing technological activities (Aly, 2019). According to Aly's (2019) work, Neom is almost the size of Belgium and will attract top talent globally to diversify the Saudi economy. NEOM will further establish its global presence by having cross-border links to Jordan and Egypt, which will likely increase trade between the countries (Habibi, 2019). NEOM also plans on increasing entrepreneurship by bringing top talent to the country. With the help of its entrepreneurial activity, Neom is predicted to contribute $100 billion to the Saudi Arabian economy by 2030 (Hassan, 2020).

Increasing tourism is a second goal of Vision 2030 that takes advantage of an existing, smaller part of their current economy. Saudi Arabia's wants to establish its second project, the Red Sea project, as a large-scale tourism resort (Habibi, 2019). This project is likely to heavily contribute to the tourism industry, which aligns with Esmail's (2018) prediction of tourism becoming a prominent sector. Habibi (2019) speculates this project will result in much of the population relocating to this area as a result.

Incorporating initiatives that impact the existing Saudi Arabian population is also important in ensuring economic diversification. Saudi Arabia's third project, Qiddaya, houses their entertainment and culture program, which benefits the existing population and newcomers alike (Habibi, 2019). Habibi's (2019) research explains the government wants this city to highlight the country's culture, while also introducing a space for other cultures to showcase themselves. This project will generate continuous income to their economy by incorporating activities such as movie theatres and amusement parks (Habibi, 2019).

Together, these three projects will offer numerous opportunities for entrepreneurship while also strengthening the country's economy. Research explains each project fulfills its own diversification purpose, which will in turn help Saudi Arabia create a sustainable, non-oil-based economy.

Conclusion

Literature in this field points to the multiple types of economic impact entrepreneurship has on the economy. Research about entrepreneurship in the past shows business ownership was common since the 1970's and was often a response to economic uncertainty. Trends observed historically such as SMEs laid a solid foundation upon which entrepreneurs today thrive.

Entrepreneurship seems to especially impact women employment rates, the private sector and industry composition of the economy according to literature in this field. Women were positively affected by new entrepreneurial initiatives that strengthen their training in entrepreneurship and legislations that support their work. Entrepreneurship also fuels the private sector by enabling entrepreneurs to thrive in an economy that favors their presence. Currently, research reveals that entrepreneurship is also altering the industry composition of Saudi Arabia. Increased entrepreneurship enables the country to diversify its revenue sources and ensures a sustainable economy. Looking forward, work in this field indicates the completion of Vision 2030 projects will further accelerate economic growth by encouraging economic diversification, employment opportunities and economic output.

Research about the current quantitative impact of entrepreneurship on Saudi Arabia's economy remains needed despite the research surrounding recent impacts. My research fills a gap in this field of literature by taking Vision 2030 and new government initiatives into account. Literature indicated Vision 2030 could impact the economy; however, failed to measure the extent of its impact thus far. In addition, my research provides an extra layer of credibility by

incorporating interviews with Saudi Arabian entrepreneurship experts. Using their interviews will supplement my own research and provide information about the trends and themes evaluated in my analysis of entrepreneurship's impact. The interviews will point to a connect or disconnect between entrepreneurship's quantitative impact on the economy versus what the society actually experiences. Looking forward, I plan for my research to provide information to policy makers globally about how entrepreneurship can influence economic factors in their countries as well.

METHODOLOGY

My methodology explores the quantitative and qualitative effects of entrepreneurship on Saudi Arabia's economic indicators. Using a mixed-methods approach, I will first analyze quantitative data about changes in new business registrations on economic components such as gross domestic product (GDP), GDP growth rates and unemployment rates. The second part of my research focuses on qualitative data collected from interviewing relevant individuals about the entrepreneurial atmosphere in Saudi Arabia. Qualitative data gained from interviews will supplement my quantitative analysis by providing explanations to observed trends.

To better understand the data and its results, I defined the following terms:

- Correlation coefficient (r): A number between -1 and 1 measuring the strength and direction of a correlation between two variables.
- Significant: Any variable having a p-value of (5%) .05 or less in regression analysis.
- Driver: My research will define a driver as any variable that is statistically significant.
- Startups: For the purpose of my research, a startup is any business incorporated through the Saudi Arabian government.
- OECD/EUROSTAT framework: Developed by the Organisation for Economic Co-operation and development, my methodology parallels their framework to evaluate determinants of entrepreneurship (i.e. entrepreneurial capabilities, government initiatives and market conditions), entrepreneurial performance (such as firm survival rates,

employment rates and export performance) and impact (including economic growth rates and unemployment rates) (Ahmad & Hoffman, 2007).

Throughout the rest of this methodology, I will further discuss my quantitative and qualitative approaches and their limitations.

Quantitative Data Collection and Analysis Procedure

My quantitative data technique compares data on the number of new business establishments and varying economic factors. This method is supported by the OECD framework as they recognize that entrepreneurship's determinants can affect factors in the "impact category," which for the purpose of my research, includes economic components such as GDP and employment rates (Ahmad & Hoffman, 2007). Therefore, their framework suggests that the correlations (if any) between the number of startups incorporated annually and the economic variables can reveal entrepreneurship's impact on the economy.

The first part of my method involves extracting data about the number of new business establishments annually in Saudi Arabia between 2008 and 2018 using data from the World Bank. I use the number of new business establishments to reflect startup registrations since it measures how many new businesses are created. The World Bank is a reliable source, serving as a international development organization that consists of 5 different institutions (The World Bank, n.d.). They offer various services to help countries advance through research, technical assistance and financial products (The World Bank, n.d.).

I collected information between 2008 to 2018 to compare the years before and after the Vision 2030 announcement in 2016. This time period is relevant considering the government started pushing for increased entrepreneurship after their announcement. The analysis only applies until 2018 because recent data about new business registrations for 2019 and 2020 have

not been released by the World Bank. Consequently, time between 2008 and 2018 enables me to compare periods prior to and after the government pushed for increased entrepreneurial initiatives.

After gathering annual new business registration data from The World Bank, I gathered data on the GDP annually since 2008 from The World Bank and evaluated the correlation between annual business registrations and the following economic indicators: unemployment and women employment since 2008. I then evaluated the numerical impact that annual new business registrations had on each economic indicator variable beyond the correlation by running a different regression for each indicator (ultimately running four regressions total). New business registrations annually served as the independent variable and unemployment, women employment, GDP, youth unemployment rates were the dependent variables in each of their respective regressions. In evaluating my model, I used my regression's statistics to determine the extent to which my model explained GDP, the significance of the model as a whole and lastly used the coefficients of each variable in the model to then measure the marginal impact that annual new business registrations have on each different economic indicator.

I did not include youth unemployment into my correlation analysis since the World Bank does not provide 2010 and 2017 data points for this indicator. I did, however, run a regression modeling youth unemployment between 2011 to 2016 since the World Bank had consistent data points for years in that period. This regression model will still provide a recent account of how entrepreneurship impacted youth unemployment before the Vision 2030 launch, as well as the year it was launched. In addition, I can still see general trends in youth unemployment during this period since the World Bank provided data on all other years between 2008-2018. Including

youth unemployment in my research remains important because it's rates signify education rates and job opportunities for high school or college graduates.

Qualitative Data Collection

The qualitative portion of my research brings quantitative data to life using accounts from interviewees and evaluates citizens' attitudes about entrepreneurship. After receiving IRB approval (see Appendix A), I asked the interviewees questions about the economic indicators that I analyze in my quantitative analysis, as well as Saudi Arabia's entrepreneurial landscape. My questions also observe how these indicators and entrepreneurship changed over time based on the interviewees' experiences in Saudi Arabia.

I compiled a list of 15 relevant individuals that either live in Saudi Arabia or are experts in the entrepreneurial landscape there. LinkedIn filters helped to narrow down a list of relevant individuals, from which I then chose my interviewees based on their expertise on Saudi Arabian entrepreneurship. I evaluated their relevance based on factors including: their education, where they have lived, their past jobs and their current job as well. Consent forms confirmed their identities will remain anonymous (see Appendix B). During the interviews, I asked them a total of 9 questions to explore their perception of entrepreneurship's impact on Saudi Arabian economy. I asked the following questions in each interview:

1. What are barriers people encounter when starting their own businesses?
2. Do you think Saudi Arabia invests enough in R&D?
3. Has it become easier or more difficult to hire people over the past 12 years?
4. What are the general attitudes about entrepreneurs among Saudi Arabians? Do you think they encourage or discourage entrepreneurial endeavors?
5. Is it easy to get investment money?

6. To what extent do you think local Saudi Arabians are involved in entrepreneurial endeavors?
7. Do you think that unemployment increased or decreased in the past 10 years?
8. Do you come across more or less women in the workplace?
9. What are some changes you expect in the future as a result of Vision 2030?

Each question points serves a purpose in evaluating entrepreneurship. The questions point to different economic indicators affected by entrepreneurship (either positively or negatively) according to the OECD framework (Ahmad & Hoffman, 2007). I used their responses to provide potential explanations for trends analyzed in my quantitative analysis and even offer new ideas about why the economy might not show what it should. Comparing the two analyses will also show either show a connect or disconnect between the numerical impact on Saudi Arabia and the public's perception of the impact. Data gathered from these interviews is reliable since the questions are based off the OECD framework and even involves individuals with experience in the field.

Limitations

My study involves numerous limitations. The first limitation is data collection between 2019 and 2020. The World Bank only provides data about new business registrations for up to 2018. Therefore, many of the most recent business trends over the past two years (such as Covid-19 impacts) will not be accounted for in my data. Lacking youth unemployment information for two years between 2008 and 2018 is another limitation, since I could not run a full regression on youth unemployment like I did for the other indicators. Despite this limitation, however, the data collected does still reflects some of the impact that Vision 2030 had the economy up to two years after its announcement.

A second limitation arises because I only had data from 15 interviews. LinkedIn is my trusted source for collecting reliable respondents since I do not have any contacts in Saudi Arabia. Due to this limitation, my interview list is narrow (with 15 people) to ensure I interviewed quality experts in Saudi Arabian business and entrepreneurship. Nonetheless, the qualitative data received will be useful. According to Guest et al.'s (2006) work, a sample of 15 people would provide sufficient data to draw conclusions from as long as my goal is to depict shared beliefs or patterns in data and people in the group are relatively comparable to one another. Gust et al.'s findings are applicable to my own research since the group I selected have similar levels of expertise on entrepreneurship in Saudi Arabia.

Lacking control variables in my regression models is an additional limitation to my research. I could not find any additional variables that would have a meaningful impact within my regressions since different government initiatives impact different economic indicators and the number of new businesses established. Data regarding the quantitative effect of these initiatives are often unmeasured since they are government policies. According to Hunermund and Louw's research however, my regression models remain relevant since control variables are "unlikely to have a causal interpretation in themselves" (p.1). Therefore, researchers should only run regressions on the variables they are interested in to prevent false conclusions (Hunermund and Louw, 2020).

The final limitation in my research is due to external variables outside the scope of my research, which limits the accuracy of the correlations I analyze. Consequently, I cannot identify any causalities regarding entrepreneurship's impact. Identifying the source of economic growth is difficult because different global phenomena could also impact past economic indicators much like entrepreneurship can. Ahmad and Hoffman (2007) however do explain that although each

individual economic indicator may not transform the economy or explain the entrepreneurial landscape, evaluating entrepreneurship using all the indicators together can provide valuable insights.

RESEARCH FINDINGS

Throughout this section, I discuss my quantitative and qualitative research findings in regards to the impact of entrepreneurship on Saudi Arabia's economy. I gathered valuable insights from my analysis after analyzing correlations and regressions between various economic indicators and entrepreneurial activity. First, entrepreneurship increased steadily since 2008 based on annual new business registration data and there was a 10% increase in the number of businesses between 2016 (when Vision 2030 launched) and 2018. Interviews with experts also show that Saudi Arabians are encouraging entrepreneurship; one interviewee even described entrepreneurship as a "gold rush" right now, with everyone wanting to start their own businesses (see Appendix E).

Secondly, increased entrepreneurship played a significant role on Saudi Arabia's economy and was highly correlated with GDP and women employment rates between 2008-2018. I also found that entrepreneurship is a significant driver of these two economic indicators. Although correlation does not indicate causation, the regressions indicate that entrepreneurship does impact women employment and GDP.

Third, increases in the number of private and public non-oil businesses are more profitable to their recent economy than the oil sector now and entrepreneurship is a significant driver of the private non-oil businesses. Qualitative data from my interviews supports my data analysis by providing potential reasons to the trends that I will discuss in this section. More specifically, I will discuss the impact of entrepreneurship on GDP, youth unemployment, women

employment and overall unemployment rates. First, I will discuss the correlations I analyzed to determine the relationships between the indicators and entrepreneurship. I will then discuss my regression findings to elaborate on the statistical significance of entrepreneurship in regards to each economic indicator.

Correlations Between Entrepreneurship and Economic Indicators

Entrepreneurship is highly correlated with a variety of economic indicators according to my analysis. More specifically, I found that entrepreneurship is most highly and positively correlated with GDP, women employment and unemployment as shown in Table 1. As annual new business registrations increase, so does GDP and women employment. Interestingly however, annual new business registrations also increase as unemployment increases. An entrepreneur I interviewed explained that unemployed individuals often establish their own businesses, which could explain the positive correlation between the unemployment and new business registrations.

These findings are especially important considering my research found that certain economic indicators (aside from new annual business registration) were correlated with one another. For example, GDP and women employment rates are positively correlated. These relationships exhibit the domino effect that entrepreneurship has by impacting one indicator, which ultimately correlates with other economic indicators as well. Higher GDP can enable entrepreneurship by providing the necessary funds to support it, which will in turn continue feeding into increases in GDP. Recognizing the power of these relationships is beneficial when making policies centered around entrepreneurship because economic indicators ultimately signify the overall health of the economy.

Table 1 Correlations Between Annual New Business Registrations and Economic Indicators

Variable	GDP ($B)	Unemployment rates	Women employment rates	Annual new business registrations
GDP ($B)	1			
Unemployment rates	0.69	1		
Women employment rates	0.67	0.65	1	
Annual new business registrations	0.77	0.75	0.89	1

Note. Data for all economic indicators are sourced from the World Bank (n.d.). Creative commons attribution 4.0 by the World Bank.

Regression Results Findings

My regressions results identify whether or not annual new business registration is a statistically significant driver of each economic indicator. Although I identified correlations among indicators and entrepreneurship, identifying which economic indicators entrepreneurship drives helps to better understand the relationships among the different variables.

Gross Domestic Product

The first economic indicator I analyzed was GDP since it provides an outlook of the economy's current state. Overall, GDP slightly fluctuated but generally remained on an upward slope since 2008. The number of new business registrations however, remained remarkably increasing annually since 2008, with their growth rate in 2018 standing at 11% (despite a slight decline in 2016).

The null and alternative of my hypotheses for the regression I ran measuring the impact of entrepreneurship on GDP consisted of:

$$H_0: \beta_1 = 0$$

$$H_1: \beta_1 \neq 0$$

In this regression, the alternative hypothesis meant that entrepreneurship in fact drove GDP, while the null hypothesis suggested that GDP fluctuates independently of annual new business registration. With a significance value of .005, I can confidently reject the null hypothesis, thereby proving that increases in annual new business registration proved to be a statistically significant driver of GDP based on table shown below. Accounting for approximately 59% of variation in GDP, this model can effectively measure the impact of entrepreneurship on the economy (see Appendix D). In fact, I found that for every marginal increase in annual new business registrations, GDP increases by about 33 million dollars.

Table 2 Regression Results Summary with GDP as the Dependent Variable

	Estimate Coefficient	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	366.36	83.00	4.41	0.00	178.61	554.11
Annual new business registrations	0.03	0.01	3.57	0.01*	0.01	0.05

Note. * Indicates significance at the 95% level. Data for GDP is sourced from the World Bank (n.d.). Creative commons attribution 4.0 by the World Bank.

New business registrations could drive GDP for a number of reasons, the first being that private and public, non-oil sectors of the economy are contributing to the growth in annual new business registrations. As shown in Table 3, the public, non-oil sector has a significance value of .04, meaning it impacts annual new business registrations at a statistical level. Table 4 also shows that the private, non-oil sector also affected annual new business registrations, with a

significance value of .01. The coefficients of both sectors are positive, thereby indicating that they marginally increase annual new business registrations.

Table 3 *Regression Results Output Predicting Annual New Business Registrations with the Public Non-oil Sector*

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	5283.90	1916.74	2.76	0.04	356.76	10211.03
Public non-oil sector	11326.43	4217.96	2.69	0.04*	483.81	22169.05

Note. * Indicates significance at the 95% level. Source: the Ministry of Statistics (Saudi Arabia) (2019) and the Ministry of Statistics (n.d.).

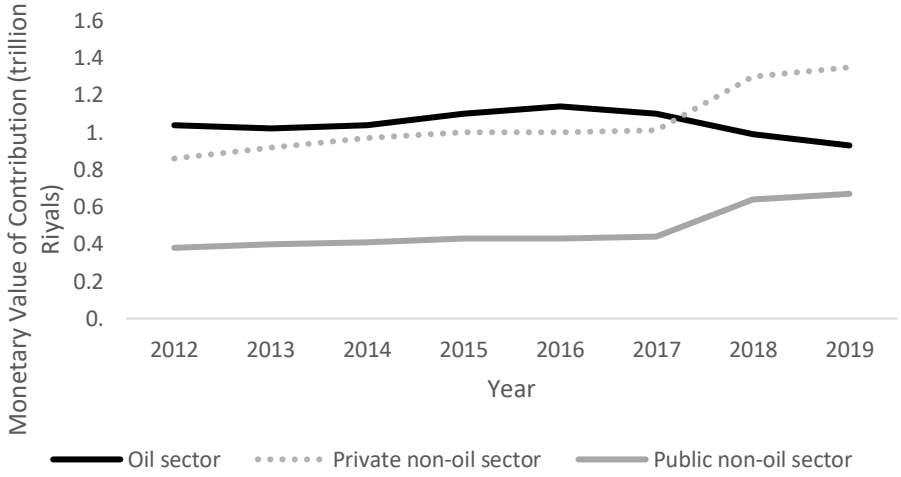
Table 4 *Regression Results Output Predicting Annual New Business Registrations with the Private Non-oil Sector*

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	2355.28	2174.77	1.08	0.33	-3235.15	7945.71
Private non-oil sector	7925.21	2138.87	3.71	0.01*	2427.08	13423.34

Note. * Indicates significance at the 95% level. Source: the Ministry of Statistics (Saudi Arabia) (2019) and the Ministry of Statistics (n.d.).

These findings are important because the private non-oil sector increased by 35% since 2016 and had a steadily increasing growth rate after 2016. This analysis aligns with experts I interviewed, who expressed that innovation-based, non-oil entrepreneurship is increasing in the country (see Appendix E). This information shows that government initiatives trying to lessen their oil reliance is working and is beneficial to increasing their GDP. An interviewee suggested that government programs are encouraging more SMEs by increasing their investment money four-fold and are even creating specific programs dedicated towards growing private sector growth (see Appendix F). Qualitative narratives about these changes parallel the altering composition of the economy shown in the graph below.

Figure 1 GDP Composition by Industry



Note. This graph shows that after 2016, there was a sharp decline in the oil sector's contribution to Saudi Arabia's GDP. On the other hand, the public and private non-oil sectors grew at similar rates. Source: the Ministry of Statistics (Saudi Arabia) (2019) and the Ministry of Statistics (n.d.).

Women Employment Rates

My research found that entrepreneurship is also a statistically significant driver of women employment at a significance value of .0002, with the regression results shown in Table 5. The hypothesis I used are:

$$H_0: \beta_1 = 0$$

$$H_1: \beta_1 \neq 0$$

My null hypothesis meant that entrepreneurship does not drive women employment, while the alternative hypothesis suggested entrepreneurship does impact women employment.

Since I accepted the alternate hypothesis, I found that women employment rates increase by .0003 for every 1 increase in annual business registration. To put that into perspective, a 7,000-

unit business increase (which occurred between 2008-2018) raises women employment rates by 2%.

Table 5 *Regression Results Output Predicting Women Employment*

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	13.1494	0.4299	30.5895	0.0000	12.1770	14.1218
Annual new business registrations	0.0003	0.0000	5.7319	0.0003*	0.0002	0.0004

Note. * Indicates significance at the 95% level. Note: Data for women employment is from the World Bank (n.d.). Creative commons attribution 4.0 by the World Bank.

I also found that women employment surged by 30% following the announcement of Vision 2030 in 2016. This provides strong evidence that Vision 2030 initiatives tailored towards women could be a contributing factor in increasing their employment rates. Therefore, increased entrepreneurship offers women a supportive environment to work and contribute to the economy according to the data trends. A source from my qualitative interview even explained that the level of innovation among Saudi Arabian women is four times that of their male counterparts (see Appendix G).

Another expert in entrepreneurship also mentioned that only 5% of investment funds in Saudi Arabia goes to women-owned firms despite women being more innovative. In the long run, continuing this trend will likely discourage women from starting their entrepreneurial endeavors. Appendix G shows that the interviewee also mentioned they think implicit bias is the source of unequal funding rather than outright denial. Looking forward however, Saudi Arabia should focus more initiatives and investment funds towards women-owned companies to maintain their upward employment rate trends. Government-encouraged training and educational

opportunities on bias and how to handle it in the future will also guide the country towards improved women employment rates and experiences.

Overall Unemployment Rates

Unemployment rates as a whole remains an important economic indicator to study because it takes other demographics into consideration. The regression I ran on this economic indicator had the following hypothesis:

$$H_0: \beta_1 = 0$$

$$H_1: \beta_1 \neq 0$$

After running the regression, I found that annual business registration is a driver of unemployment rates. The significance level of my model is .008 as shown in Table 6, therefore I can accept the alternative hypothesis of annual new business registrations impacting this economic indicator. The positive coefficient of .0001 from this regression indicate that every marginal increase in annual business registration leads to a marginal increase in unemployment rates. These findings are interesting considering entrepreneurship should instead lead to a marginal decrease in unemployment rates. However, the coefficient margin seems too small at .0001 to have any substantial impact on unemployment rates. This small margin indicates that while entrepreneurship may be a statistically significant driver of unemployment rates, it accounts for such a small part of the overall changes in unemployment rates.

Table 6 *Regression Results Output with Unemployment as the Dependent Variable*

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	4.9928	0.1928	25.8976	0.0000	4.5567	5.4289
Annual new business registrations	0.0001	0.0000	3.3594	0.0084	0.0000	0.0001

Note: Data for unemployment is from the World Bank (n.d.). Creative commons attribution 4.0 by the World Bank.

The small and unexpected positive coefficient yields a few questions as to why entrepreneurship is not affecting unemployment rates despite it offering more opportunities for work? One reason could be that Vision 2030 is not fully implemented yet; the cities are not fully built yet and many businesses in that area are not fully built. Consequently, Saudi Arabia might realize the benefits of entrepreneurship and Vision 2030 in a few years when they finish building the new cities that will increase employment opportunities.

A few interviewees also mentioned that Saudi Arabia recognizes their challenge with unemployment rates and tried combatting it with "Saudization," which is a government initiative aimed at hiring more Saudi locals (as shown in Appendix H and I). Interviewees also claimed that Saudi Arabia used to and still outsources much of their technological work as explained in Appendix J. The government hopes that hiring locals will solve this problem. However, Saudization tends to leave immigrants behind, which is a slight caveat to this policy. An interviewee even mentioned that as an immigrant, he resorted to entrepreneurship to ensure financial security since many of the job promotions were going to Saudi Arabian locals (shown in Appendix H). Moving forward, Saudi Arabia should continue focusing on hiring local Saudi Arabians, however, should also focus a few initiatives on ensuring other immigrants do not get left behind to maximize their employment rates.

Youth Unemployment

My regression analyzing youth unemployment between 2011 to 2016 found that entrepreneurship was not a statistically significant driver. I used the following hypotheses in my regression:

$$H_0: \beta_1 = 0$$

$$H_1: \beta_1 \neq 0$$

I could not reject the null hypothesis that entrepreneurship does not drive youth unemployment since the model has a high significance value of 26%, which is greater than my significance threshold of 5% or less. Table 7 displays that annual new business registrations (β_1) has a coefficient of about 0, meaning that marginal increases in entrepreneurship do not significantly influence youth unemployment.

Table 7 *Regression Results Output Predicting Youth Unemployment*

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%
Intercept	35.2165	5.18157	6.79649	0.00245	20.8301	49.6028
Annual new business registrations	-0.0007	0.00055	-1.3169	0.25824	-0.0022	0.0008

Note. Data for youth unemployment is from the World Bank (n.d.). Creative commons attribution 4.0 by the World Bank.

Although insufficient data from the World Bank only enabled me to run a regression between 2011 and 2016, I found that in 2018 youth unemployment rates rose to 28.82, increasing by 5% since 2016. This aligns with an interview I conducted shown in Appendix K, where an expert explained that many students are graduating from universities and cannot find jobs. Despite increases in government initiatives to support youth, youth unemployment rates remain highly volatile. There is no clear pattern in the data, however it seems that youth unemployment rates were on a downward trend between 2011 and 2016, but rose in 2018.

Such volatile rates are concerning considering 70 percent of the Saudi population is under the age of 30 according to one of the experts I interviewed (see Appendix L). One interviewee suggested that Saudi Arabia's high rate of students studying abroad internationally could be a reason for highly fluctuating youth unemployment rates, explained in Appendix H. Hundreds of thousands of students take advantage of the government-sponsored opportunities to study abroad; therefore, different numbers of students are entering and exiting the workforce annually based on when different age groups go to college. Consequently, youth unemployment rates vary drastically each year.

The highly volatile nature of youth unemployment introduces a few ideas, the first being that more policies should be tailored towards youth entrepreneurship. Experts in Saudi Arabian entrepreneurship mentioned that the interest is present among the youth, therefore indicating that now they mainly need more initiatives that will translate that interest into actionable results (i.e. starting their own businesses). Many experts also noted that Saudi Arabia still needs to improve its entrepreneurial education. Appendix L shows that interviewees specifically stressed the importance of strengthening technical skills, which many Saudi Arabians currently lack but nonetheless remain necessary for the kinds of businesses that interest Saudi investors. In addition, I found that young Saudi entrepreneurs often struggle with soft skills, which leads to many of them not excelling the way they could otherwise (according to interviews shown in Appendix L). Consequently, better education tailored towards the intersection of technical and soft skills could tremendously improve the youth employment landscape of Saudi Arabia.

CONCLUSION

My research findings yield that entrepreneurship does in fact play an influential role in impacting certain parts of Saudi Arabia's economy. The regressions I ran prove that entrepreneurship is a significant driver of recent GDP and women employment and that these factors were also directly correlated with one another. While unemployment rates and youth unemployment yielded inconclusive results, they still point to improvements that can be made to ensure that entrepreneurship can positively influence these rates. Understanding entrepreneurship's effect on various economic indicators is valuable in the realm of public policy because it helps legislators understand the extent to which increased funding or trainings in entrepreneurship can advance their economies. Economic indicators unaffected by entrepreneurship could also offer a telling story as to whether certain government initiatives are effectively impacting the indicators they hope. My insights fill the gap in prior literature surrounding this subject by offering more recent, quantitative analysis on the entrepreneurial landscape of Saudi Arabia as well as qualitative data that I gathered from interviews. I conclude my research by providing suggestions for future policies and research according to the trends I analyzed in data.

Future Policies

After analyzing data from 2008 to 2018, I found that Saudi Arabia should focus their future policies around three primary themes: racial equality, gender equality and lastly education. Racial equality is a major inhibitor for many immigrants in Saudi Arabia looking for opportunity and career growth. Interviews with entrepreneurs and experts in entrepreneurship echoed this

concern. Numerous interviewees explained that many immigrants in Saudi Arabia struggle with career advancement and finding job opportunities. Although entrepreneurship offers an alternative opportunity for immigrants to create their own career growth, ensuring equality in the workplace could significantly improve unemployment rates overall and among youth as well. More specifically, the Saudi Arabian government should consider implementing policies that ensure immigrants are accounted for in the workplace. Creating policies that stress equality and inclusivity will also benefit Saudi Arabia's future endeavors in regards to NEOM. Since they plan on bringing international talent to their future technology capital, these policies will be essential in presenting Saudi Arabia as an attractive place for them to start or accelerate their careers.

Gender equality is also necessary for Saudi Arabia to continue growing its economy. More specifically, the Saudi Arabian government should implement more policies ensuring women are granted equal opportunities to business endeavors as men. An interviewee revealed that although women's rights and equality improved recently, underlying implicit bias remains an issue. I therefore suggest that the government should create specific policies enabling women to receive these equal opportunities, perhaps through means of setting a set rate at which investment funds should go to women, ensuring women investors are on investment teams, or even incorporating training on equality and inclusivity regarding women and immigrants. Creating these policies will encourage more women to pursue entrepreneurial endeavors, while also aiding women currently struggling in the field of entrepreneurship.

Saudi Arabia should lastly focus its future policies on improving education regarding entrepreneurship and emerging fields in the kingdom. Experts I interviewed stressed the challenges many start-ups face in finding talent relevant to growing fields such as technology

and tourism. They mention that more education and training should be implemented around these fields to improve employment rates because jobs regarding these skills become outsourced to other countries. Saudi Arabia could specifically offer policies such as:

- Offering discounted tuition rates for students studying emerging fields (like computer science, software engineering and entrepreneurship)
- Offering government-subsidized training opportunities for college students or unemployed individuals
- Offering government-sponsored workshops in corporations that are looking to excel in these fields

Incorporating these initiatives would aid in improving unemployment rates and could even attract more talent to the country. These initiatives could also accelerate economic growth by funding talent that will aid their future economies and ensure sustaining growth. Looking forward, Vision 2030 offers a promising future to continue fueling economic growth through the lens of economic growth and innovation.

Future Research Opportunities

Areas of future research opportunities present themselves daily as the country continues advancing in their Vision 2030 plan. I analyzed data from 2008-2018, therefore any analysis on the state of entrepreneurship in Saudi Arabia afterwards could benefit this research field since recent events such as Covid-19 were not considered in my data analysis. Looking forward, research surrounding the effects of Covid-19 on entrepreneurship and economic growth would shed insight on employment trends during the pandemic. In addition, research involving the impact of NEOM once its fully built could also provide more data on this topic considering business registration rates are expected to soar after its establishment. Adding more years in the

regressions would also provide a more accurate reflection of the relationship between entrepreneurship and economic indicators.

Future research could also involve taking a larger sample size of interviewees than I did. Although I interviewed 15 people, taking more perspectives into account would offer even more information as to the reasons behind economic trends observed. In addition, having a larger pool of interviewees would provide a more accurate reflection of the Saudi Arabian population's perception of entrepreneurship. I also think people's perceptions of entrepreneurship could change as the country nears Vision 2030's completion, so recording accounts of individuals in years to come will be useful in evaluating how people's perceptions could have changed between then and now.

Researching the impact of entrepreneurship on other economic indicators is another area of future research. Although the 4 indicators I analyzed are representative of economic health, there are a number of other factors that play a role in Saudi Arabia's economy and their citizens' lives. Therefore, a more in-depth analysis of other economic indicators such as education or immigration rates would be helpful in further analyzing the impact of entrepreneurship on these factors as well.

APPENDIX

APPENDIX A: IRB APPROVAL LETTER

THE UNIVERSITY of NORTH CAROLINA at CHAPEL HILL

OFFICE OF HUMAN RESEARCH ETHICS
720 Martin Luther King, Jr. Blvd.
Bldg. 385, 2nd Floor
CB #7097
Chapel Hill, NC 27599-7097
(919) 966-3113
Web site: ohre.unc.edu
Federalwide Assurance (FWA) #4801

To: Hidy Akila and Maryann Feldman
Frank Hawkins Kenan Institute of Private Enterprise

From: Office of Human Research Ethics

Date: 1/13/2021
RE: Notice of IRB Exemption
Exemption Category: 2.Survey, interview, public observation
Study #: 20-3219

Study Title: The Impact of Entrepreneurship on Saudi Arabia's Economy

This submission, Reference ID 315334, has been reviewed by the Office of Human Research Ethics and was determined to be exempt from further review according to the regulatory category cited above under 45 CFR 46.104.

Study Description:

Purpose: The purpose of my research is to evaluate if and to what extent entrepreneurship played a role in Saudi Arabia's economy over the past 12 years. My method serves as an important supplement to prior research because it provides the most recent update of entrepreneurship's impact on the economy and individuals' narratives that encountered these changes first hand.

Participants: a group of 15 participants I plan to connect with via LinkedIn.

Procedures (methods): My methodology involves collecting quantitative data to supplement existing research about the impact of entrepreneurship on Saudi Arabia. I plan on interviewing 15 individuals about Saudi Arabia's entrepreneurial atmosphere. I found relevant people in the field of Saudi Arabian entrepreneurship using the filter feature on LinkedIn. I hope to contact them using LinkedIn. I will ask them 9 questions, all centered around entrepreneurship in Saudi Arabia. After interviewing them, I will use their (non-identifiable) responses to evaluate the extent to which they see entrepreneurship impacting Saudi Arabia.

Submission Regulatory and other findings:

As a reminder, although the UNC-Chapel Hill OHRE/IRB may have approved or made a determination that this study can commence, at this time UNC-Chapel Hill in response to direction from the UNC System Office has reduced campus activity significantly due to the COVID-19 outbreak. All human subject research activities are expected to follow all institutional and UNC Health policies, including those that may limit direct contact of participants. If you need to modify or alter your study design due to COVID-19 in order to conduct your research activities, please submit a modification and advise in the "Cover page" that this is "COVID-19 Related".

APPENDIX B: CONSENT FORM FOR INTERVIEWEES

University of North Carolina at Chapel Hill
Research Information Sheet
IRB Study #: 20-3219
Principal Investigator: Hoda Akila

The purpose of this research study is to see the impact that entrepreneurship has on Saudi Arabia's economy. You are being asked to take part in a research study because your expertise in business, entrepreneurship and Saudi Arabia aligns well with this research topic.

Being in a research study is completely voluntary. You can choose not to be in this research study. You can also say yes now and change your mind later.

If you agree to take part in this research, you will be asked to partake in an interview with the principal investigator, Hoda Akila. You will be initially contacted via LinkedIn and after agreeing to be part of the study, will set up a meeting to discuss entrepreneurship in Saudi Arabia. The interview consists of ten questions relating to the entrepreneurial atmosphere in Saudi Arabia and will last for approximately 30 minutes. We expect that 15 people will take part in this research study.

The possible risks to you in taking part in this research are:

- Others realizing your identity in the study

The possible benefits to you for taking part in this research are:

- Contributing your expertise and wisdom

To protect your identity as a research subject, the research data will not be stored with your name and the researcher will not share your information with anyone. In any publication about this research, your name or other private information will not be used.

If you have any questions about this research, please contact the Investigator named at the top of this form by calling +18653609891 or emailing hidyakila@gmail.com. If you have questions or concerns about your rights as a research subject, you may contact the UNC Institutional Review Board at 919-966-3113 or by email to IRB_subjects@unc.edu

APPENDIX C: INTERVIEWEE ANSWERS ABOUT ATTITUDES TOWARDS ENTREPRENEURSHIP

Interviewee number	What are the general attitudes about entrepreneurs among Saudi Arabians? Do you think they encourage or discourage entrepreneurial endeavors?
1	Encourage; Saudi used to be about the formal jobs; over the last 7 years though everyone wants to be an entrepreneur, especially since a lot of the companies are doing well.
2	Encourage, they think being an entrepreneur is cool.
3	Its encouraged, but parents still prefer their kids to have a secure job.
4	Perception is there; interviewee has attended events were people are just curious of entrepreneurship. Fear of failure is decreasing. Risk appetite increased. Look at entrepreneurial affiliation - ranked among the top in the world. More Saudi women know entrepreneurs than American women that know entrepreneurs (entrepreneurial affiliation).
5	They encourage it a lot. People used to go for hajj and make their own business in Saudi Arabia. Total entrepreneurial activity has increased.
6	They encourage entrepreneurship in every aspect.
7	Mentality has changed significantly (even year to year). Fear of failure is going down.
8	Heavily encouraged, especially from the media and is romanticized.
9	They do encourage entrepreneurs - its like a gold market right now.
10	They are collegial and collaborative but at the same time they are not as tolerant of risk. Failing is like a badge of dishonor.
11	It depends on the families; some people like security so they do not like it; other people have families in businesses.
12	Generally, entrepreneurs enjoy a good social stand. And yes, Saudis encourage entrepreneurship.
13	Government jobs were easily available, were well paid and had a social standing. With the job numbers coming down and job seekers increasing, a shift towards entrepreneurship as a career is easily visible. Social acceptance of entrepreneurship as a career option for young people is work-in-progress.
14	Encouraged, but people are now calling themselves entrepreneurs without actually being entrepreneurs.

15	Attitudes about entrepreneurship improved; people are more accepting of having entrepreneurship as a career. This could be because the country needs more diversified businesses and because there are more role models in the industry.

APPENDIX D: REGRESSION STATISTICS OF ANNUAL BUSINESS REGISTRATIONS AND GDP

Regression Statistics	
Multiple R	0.765850687
R Square	0.586527274
Adjusted R Square	0.54058586
Standard Error	77.05393626
Observations	11

Note. Data for GDP is sourced from the World Bank (n.d.). Creative commons attribution 4.0 by the World Bank.

APPENDIX E: INTERVIEWEE ANSWERS TO VISION 2030 EXPECTATIONS

Interviewee number	What are some changes you expect in the future as a result of Vision 2030?
1	A much more technology engaged population. Transitioning people from being users to creators is hard, but vision 2030 is changing that. Saudi Arabia is going from religious to nationalistic.
2	We are looking at different generations; it is an inspiring future. Diversity, equality, nation is changing.
3	Creative industry (filming, arts) will peak - it'll be on top of any other industry. Tourism will also be huge.
4	The government will be less reliant on oil. Saudi Arabia will have a more diversified economy. The economy will be sustainable and scalable. There will be increased SMEs growth. Vision 2030 created a shared vision that aligned different government parts together. "The stone age ended not because of a lack of stone, the oil age will not end because of a lack of oil"
5	There will be more emphasis on education, entrepreneurship and openness and market economy. Competition of companies will increase and thus decrease the amount of monopolies. Vision 2030 will diversify economy. If they want to develop themselves, they have to go into these new sectors.
6	Interviewee expects a lot every day, in every aspect (education, entrepreneurship, health).
7	Diversification away from oil, localization, global tech investments are expected.
8	Improvements in terms of regulation; mixed ownership; more startups expanding to Saudi; continued excitement of investments in Saudi; valuations will steadily increase; finding more excitement on technology are all expected.
9	They will make it easier to start their own business. They will start rewarding those with innovation. Dependence on oil will decrease.
10	It is addressing the challenges he mentioned, opening up the Saudi economy, creating an environment of welcoming people, welcoming collaboration. Vision 2030 is looking towards future industries including water, dessert agriculture, health and well-being, clean energy.
11	Vision 2030 will help Saudis to grow and develop and increase business opportunities.
12	More startups and better ecosystem.

13	Entrepreneurship and the SME sector will continue growing. The Public Investment Fund (PIF) new investment fund will also draw more attention to private sector involvement.
14	Everything, we just started seeing the benefits from having an ambitious vision. Saudis are feeling prouder to be Saudi.
15	Slowdown in terms of achieving the goals for 2030; interviewee thinks there will be a draw to focus on Riyadh as the capital. We will see a lot of opportunities drawn to Riyadh.

APPENDIX F: INTERVIEWEE ANSWERS ABOUT INVESTMENT FUNDING

Interviewee number	Is it easy to get investment money?
1	There are places you can get grants; but if you do not have proof of concept it is hard.
2	It is easy to get investment money; there are angel investors all over the place. People like to invest in their children.
3	A lot of resources are available, like taking out loans. The question is if people are comfortable taking out loans.
4	4-5-fold increase in investment money. The government poured 4 billion riyals into investments. The government invested in ventures that then invest in companies. They have a loan guarantee program (if they are an SME who has assets and you go to a bank, this program said the government would cover part of the loan if the business could not pay it off).
5	Yes, it is easy; there is a government owned venture capital fund (SVC) "More money than ideas"
6	It is not easy but it isn't hard if you have a good idea. It could be hard if people do not know how to communicate their idea.
7	Easier to raise money there because there is less competition and enough investors if you had a good plan and good experience. " There are more investors than entrepreneurs."
8	It is never easy, but it is been easier.
9	No, but you can if you go out, look and ask for it.
10	Yes, but it is not going to the right places.
11	If you have all the components.
12	It got easier in recent years and improving by the day.
13	The venture investment ecosystem is developing rapidly. Angel networks, VC networks are developing rapidly in Riyadh, Jeddah and other places and the government investment arms and regulatory policies are actively supporting it. For example, the regulation allows for innovations like crowd funding.
14	It is getting much easier; there too much money but not as many good ideas.
15	If you're Saudi, yes. Not a problem of finding investment, it is about finding the entrepreneurs to invest in

APPENDIX G: INTERVIEWEE ANSWERS ABOUT WOMEN IN THE WORKPLACE

Interviewee number	Do you come across more or less women in the workplace?
1	More. Women still face barriers in getting access to R&D funding. The interviewee believes this is a result of implicit bias and not outright discrimination.
2	More.
3	More, employment for women reached 41%. People tend to keep women and ask men to leave because of high pressure from government to appoint and keep women.
4	Way more women in the workplace. First team member that joined in interviewee's team was a woman. They are integral to the workplace. The level of innovation among women is 4x that of their male counterparts.
5	There are much more women now in workplaces compared to 2016.
6	So many more women. When they joined their team, there only 3 ladies with 10 men. Before that there was only 1 woman. Now they are equal numbers (8 woman 8 men)
7	Absolutely moving in the right direction.
8	In the workplace; but startups, its lower but is steadily increasing
9	Certain industries have more women than men but most of the ratio is becoming more equal generally Its common for them to be in the service sector
10	More in relation to before, but they are still small.
11	It has become more common.
12	More women.
13	It is definitely on the rise in the recent past, even though we have some way to go in this space.
14	Much more.
15	Definitely more.

APPENDIX H: INTERVIEWEE ANSWERS ABOUT HIRING

Interviewee number	Has it become easier or more difficult to hire people over the past 12 years?
1	Easier; but there is a growing number of talent; they have nonprofits teaching technology skills. Lacking: emotional intelligence; soft skills. Good news: there are a lot of young people, people with ambition. Finding someone that has both emotional and technology intelligence is so hard.
2	Easier.
3	It is starting to be competitive; it is no longer about who you know, it is about your merit (depending on the sector).
4	Talent is now abundant. Since 2006 (King Abdulla Scholarship Program), many students were sponsored abroad. Now those students came back and brought their talents. “Sponsored diaspora” - students are trying to serve their country. Bulk of the population is under the 30 (70%). Thousands of students were out of Saudi back in 2008.
5	Main issue is supply and demand; more people are coming into the market but demand is also increasing. They want to demote people from coming from abroad (Saudization). More difficult to hire effective resources overall.
6	It is common to find Saudi talent after great educational programs.
7	Talent pool for technical skill programming or specialty niche is small, so its costlier to hire locals.
8	Coders have become scarcer, but broadly it has become easier. There is more supply than demand and the ability to retain them is really hard.
9	Easier because the government will give you incentives. The government will pay salary for 6 months if you hire a Saudi graduate. This leaves immigrants like themselves behind though because businesses favor locals more.
10	It is getting easier and easier. There are a lot of rules and regulations but they make it harder to invest or bring talent into the country.
11	No difficulty.
12	Easier.
13	Definitely it has gotten better in the last few years and will improve with time. Government organizations that assist startups with funding and support have been established and job portals with advanced filtering systems to make finding talent easier. Many initiatives are being taken to develop the skills that have been in short supply in the past.
14	Easier but hiring talent is getting harder - difference hiring people with talent and just hiring people.

15	Employment opportunities for Saudis increased because of Saudization, especially for those with experiences abroad. Employment opportunities for expats decreased because of Saudization.

APPENDIX I: INTERVIEWEE ANSWERS TO INVOLVEMENT

Interviewee number	To what extent do you think local Saudi Arabians are involved in entrepreneurial endeavors?
1	They are very involved.
2	There is high entrepreneurial affiliation. There are now "productive families," which is any person who produces food or items and they sell from home
3	Yes, people do it irrationally. People are engaging with it on social media (lifestyle entrepreneurs).
4	Very Involved.
5	A lot of people are getting involved day by day; number has exponentially grown.
6	It is really common; a lot of Saudis are interested in this field. Even when they fail, they want to start again.
7	It's common to come across intrapreneurship at corporations.
8	On average, no; there is interest, but regular day to day its a minority sport.
9	It is not very common but it is getting there.
10	Small percentage of them are involved in innovation-based entrepreneurship, but the interest is there.
11	Probably 30-40% of people have businesses.
12	A lot of Saudis get involved in new projects all the time.
13	Incubation centers in Universities and an active promotion has placed entrepreneurship as a viable career option for Saudi youth. And the Saudization effort is also helping.
14	Roughly 90% of Saudis are entrepreneurs.
15	It is still quite small, but celebrates how many more women there are i entrepreneurship. The overall number of entrepreneurs is 20%, so there is room to grow.

APPENDIX J: INTERVIEWEE ANSWERS TO R&D INVESTMENTS

Interviewee number	Do you think Saudi Arabia invests enough in R&D?
1	No; Saudi outsources a lot of R&D; Saudi needs deep tech; universities need a more direct tie to R&D funds.
2	Yes.
3	Yes, whether it's funds or grants across all majors.
4	There was an increase in terms of R&D investment rate as percent of GDP since 2016. Recently there has been more attention to that domain and there have been some improvements.
5	There are some pockets of funding in different areas, At their place of work they have a focus on tech entrepreneurship. Overall, it needs more attention.
6	Yes, they are moving to a new phase (2030); investing in everything related to improving the country overall.
7	Saudi is doing enough with universities and government entities.
8	Overall, more could be spent.
9	Not sure, but in the recent years the government is pushing the entrepreneurial startups. Investing in the promotion of startups- celebrating them more.
10	Their investments are mostly focused on supporting traditional industry instead of innovation. Not enough is going towards clean energy, water challenges.
11	Yes, it is easy if you have all the components.
12	No.
13	Under Vision 2030, any area with potential cannot complain of lack of government support currently in KSA.
14	No, but they realize this and a few weeks ago a supreme committee. Government sector is more open to R&D than private sector.
15	Depends on the sector; not in higher education, but in the oil industry they do. Hard sciences are prioritized over humanities

APPENDIX K: INTERVIEWEE ANSWERS TO UNEMPLOYMENT

Interviewee number	Do you think that unemployment increased or decreased in the past 10 years?
1	Increased; pandemic made everything worse, but because the country is aiming towards privatization and startups.
2	Decreased, because the entrepreneurs increased, therefore unemployment is going down.
3	Pandemic is increasing unemployment but people starting their own businesses increases employment.
4	It has been fluctuating, but with COVID-19 it increased in the past year. They see a lot of freelancers now. They grow steadily for a few years, dip and then go back up again.
5	Unemployment has increased.
6	After COVID-19 its decreased.
7	Increased.
8	Has increased; there is talent but with declining oil prices and COVID-19 has caused it to increase.
9	Overall decreasing, but could have increased because of COVID-19 last year.
10	N/a.
11	More, a lot of universities have students that graduated and have no available jobs for them.
12	I don't know.
13	It has increased. COVID-19 has worsened the problem.
14	It has increased, especially with COVID-19.
15	Depends on the sector you're looking at; MBAs get employment opportunities very quickly. Overall, its increased because of employment opportunities.

APPENDIX L: INTERVIEWEE ANSWERS TO BARRIERS

Interviewee number	What are barriers people encounter when starting their own businesses?
1	For young people, soft skills are a barrier. You have to prove your worth more. Less involvement in government startups is needed, still so much depends on the government. Lack of data in Saudi market is a barrier too; government sites have conflicting information.
2	It depends on the type of business; to establish the connection, networking. If it's a student, they struggle having connections to the market. Students in different colleges learn about a specific field without learning about entrepreneurship (Ex: dentist wanting to open their business, not knowing how). It is becoming mandatory to teach entrepreneurship. What's not a barrier: financial or funding support; there are a lot of investors and incubators. Sometimes, there is a social pressure to become an entrepreneur, but some families do not like it out of pride and prejudice
3	1. Collective society- they do not like uncertainty 2. Fear of failure because of social stigma, Saudis value safety
4	1. Regulations with the caveat that since vision 2030 there have been some reforms that made it better. New companies law were announced recently that revamped the regulations 2. Mentorship is a challenge- they have an abundance but getting the right ones is important. 3. Number of accelerators- they are increasing but they need more focus when it comes to running and managing them. Service providers started tailoring their services to cater to SMEs
5	1. Availability of human resources. 2. Government regulations have improved a lot in the last few years but it will take time to tackle some issues.
6	Struggle to find a good idea for the right market is one barrier. Lack of knowledge of how to find the right idea for the right market is another. Lack of money & struggle to find angel investors is a third barrier.
7	Fear of failure, pressure from family or beliefs and access to capital are barriers. Ease of incorporation is also a barrier, but it is easier today than 8 years ago. Hiring locals is also a barrier because they are expensive.
8	Access to talent is a barrier.
9	Lack of information online is a barrier (like about how to register a business). Whatever is online appears to be shady to a lot of people.

10	lack of venture capital, regulatory issues and cultural barriers are all obstacles to starting a business. The BOD of a company also had to be Saudi citizens at the time they worked in Saudi. Regulations for international funding in Saudi Arabia was also hard.
11	People are not ready to start their own businesses. They need the skills and patience to do it.
12	Mostly government processes. Too much paper work.
13	Things are changing fast in KSA. The main barriers to entry for entrepreneurs are regulations and bureaucracy, access to funding and access to talent. The challenges that exist for entrepreneurs in the Kingdom are actively being addressed by the Saudi government as they aim to develop entrepreneurship space. The government address this through the introduction of the entrepreneurs license in November 2017 and the introduction of bankruptcy law.
14	Hiring process, finding good professional people who can add to the value, finding tech backgrounds are all challenges to starting a business in Saudi Arabia.
15	Services are concentrated in 3 main urban centers. If you're located there, you have more access to the market. Otherwise services are limited. Lack of information about industry data is a barrier. Regulatory framework is always changing, so people need to stay up to date. Over 70% of the population is under 30, so they are creating businesses catering to that population but there's a gap in aging population businesses. Emerging sectors (hospitality and tourism) do not have infrastructures.

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