Increased Labor Productivity, Stronger Business Environment-Transforming the Economy, Saudi Arabia

Dr. Nadia Yusuf
King Abdulaziz University, Saudi Arabia

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Abstract
The economic growth cannot depend on the oil revenues and the spending on the public to fuel their economy due to the change in the global market and demographic changes. The oil shocks regulated by the international capital markets determine the current and future transformations of any oil producing country. This paper examines the impact of increased labor productivity in transforming the economy of Saudi Arabia. Saudi Arabia is among the countries that depend on oil revenue for the stability of its economy. However, due to the recent changes in demographics and oil prices, the country is facing crises in the country. Moreover, the country forecasts a population increase, so the need to come up with labor intensive projects by 2030 to absorb the upcoming working class. The research will derive the relationship between labor induced productivity and its ability to transform the Saudi Arabia economy.

Keywords: Economic growth; envision 2030 planning; labor productivity; transforming economy; Saudi Arabia

1. Introduction
Saudi Arabia is located in the western Asia with its origin in Arabian Peninsula. The country is also the fifth largest state in the whole continent of Asia. Saudi Arabia neighbors Jordan, Kuwait, Qatar, United Emirates, Oman, and Yemen. Saudi Arabia accesses both the Red Sea and the Persian Gulf. The country previously consisted of four regions namely Hejaz, Southern Arabia, Eastern Arabia, and Najd before being united into one empire. The empire of Saudi Arabia was founded on 1932 by Ibn Saud when he joined the four regions through subsequent conquests since 1902. He captured Riyadh mostly known as the House Saud. The Empire is an entirely monarchical with an effective hereditary leadership that is dictatorial. The primary sources of finance are oil and gas industries. The oil market prices and risks, therefore, determine the end country returns (Almutairi, 2015). Oil being the backbone of the economy is mostly mechanized. The paper seeks to assess the utility of labor in a conducive environment to foster the transformation of the economy. The available data suggests a possibility of rapid unemployment by 2030 if the country does not adopt favorable policies.

Mckinsey Global Institute (2016) stated that over the past decade, the Saudi Arabia has had a surge in their economy demanding for a transition point in the dynamism of the productivity and investment. There was an oil price boom from 2003 and 2013, thus, causing
the prosperity of the Saudi Arabia to be the 19th largest economy in the world. However, since 2014 the oil prices started to decline and this set back the gross domestic product (GDP) of the Kingdom. The GDP doubled, increased per capita income by 75%, and created about 1.7 million jobs for the Saudi Arabians including women from 2003 to 2013. The country leadership invested mostly in education, infrastructure, and health. The state also put up reserves equivalent to the 100 percent of the GDP of 2014. Subsequently, the oil prices have fallen, and the country no longer has amount of income to support the population.

On the other hand, the state economic growth cannot depend on the oil revenues and the spending on the public to fuel their economy due to the change in the global market and demographic changes. In fact, it’s over dependence on natural resources, to be precise oil make it a bit difficult for it to manage and use them sustainably. For this reason, a majority of countries in the Arab region including Saudi Arabia have focused on implementing policies that will diversify their economy. For instance, there are reforms to develop the regions’ infrastructure, strengthen the commercial environment, improve literacy levels and increase companies funding. Diversification of the economy will minimize Saudi Arabia overreliance on natural resources because some investments will be made in the private sector. In return, more jobs will be available for Saudi nationals. In fact, the diversification of the economy will result in the development of a non-oil economy that will be crucial for the economy of the country when oil reserves are diminished (League of Arab States, 2015). Diversification of the economy in the Arab region is often hindered by various factors such as economic volatility due to over dependence on oil reserves and the oil revenues corroding effect on institutions and governments. Accordingly, the demographic changes show a bulge of a working age class of the Saudi Arabia by 2030. The country has a current labor participation that stands at 41% and growth in productivity of 0.8% from 2003 to 2013 which is way behind the majority of the world economies. The labor force of the Saudi Arabia constitutes the majority of the foreign workers who are paid way less than the Saudi nationals. The kingdom unemployment level, the decline of household revenue, and government fiscal position is likely to fall despite the introduction of a reactive policy that freezes the immigration budget. The government, thus, is required to adopt a labor productivity that will aid in the transformation of the economy. The labor-led productivity guarantees to double of the GDP through the creation of millions of jobs for the Saudi Arabians by 2030. The step calls for an investment of about four trillion US dollars in many sectors such as mining, petrochemical’s, tourism, finance, and construction (Mckinsey Global Institute, 2016). The paper will examine the how increased labor productivity and stable business environment will account for changing the economy of the Saudi Arabia.

2. Literature Review

Most of the study previous research focuses on the developed countries. However, there is enough evidence to show that increased labor productivity and a stronger business environment is an opportunity to transform the Saudi Arabia economy (Dahlquist & Robertsson, 2000). According to Al-Ali (2008), the macroeconomic changes such as labor are used to influence the country stock price revenues. The researchers found out that the stock market is affected by the inflation, interest rates, bond yields and the industrial production. Oil
price risk although not related in this study is part of the stock market of Saudi Arabia since it is the primary economic product. The data was supported by many other studies including a Japanese investigation that showed that oil prices increase stock returns (Fama & MacBeth, 1973).

The oil shocks regulated by the international capital markets determine the current and future transformations of any oil producing country. The oil prices are susceptible to the stock markets and the oil price shocks. Japan and the UK were significantly affected by the oil price shocks, unlike Canada and the USA. Change of oil prices thus influences the stock returns which in turn influences household income (Dabla-Norris et al., 2014). Basher & Sadorsky (2006) focused on establishing the relationship between the oil prices and the impact it has on the stock returns. They found out that the price risk of oil is influential to some stock returns. However, the relationship is determined by the frequency of the data used. The oil prices increases have positive or negative influences on the stock market returns depending on the state of the market. For emerging market, the oil prices monthly and daily data have a positive impact on the stock market revenue.

3. Sources of growth

According to Shayah (2015), the increase of the emerging and developing economies of countries such as Saudi Arabia is based on convergence to catch up with the developed countries. The GDP per capita strongly grew in the 1990s due to the high-return investment from absorption of imported technologies. The countries experienced faster growth fueled by advanced technologies despite the financial crises in some parts of the world such as Asia, Tequila, and Russia. The growth was not inhibited by the collapse of the Eastern Europe output either. The increase in these economies was fostered by external factors such as regional and global value supply chains. The expansion of the chains promoted the growth of countries within Asia, most parts of Europe, and thus, increased the transfer of technology and knowledge. The technology advancement, in turn, fostered the reduction of transport and communication costs (Hvidt, 2011).

3.1. Democracy in the Arab Region

For Saudi Arabia to achieve a stable business environment and enhance its economic growth, political stability in the country is paramount. According to Lynch (2012), the Arab region is increasingly becoming democratic given the recent Arab uprising, the opening up of traditional and online media, public forces empowerment, and contentious political changes in the region. According to Arab Barometer, Arabs view democracy as an excellent form of governance compared to Islamism. Citizens in the Arab region including the Kingdom of Saudi Arabia perceive democracy in both economic and political terms. In political terms, democracy entails fair and free elections whereas in economic point of view, democracy entails the provision of services to the entire population regardless their socio-economic backgrounds, age, gender, and sexual orientation as well as reducing inequality. However, the comprehension of democracy was boosted during the resurfacing of the Arab Spring. For instance, during the first wave of the revolution, 67.8% of people in the Arab world argued that the voting process
should not be influenced by religion rather the reforms that the contestants want to initiate in the country (Lynch, 2012). In the second wave of the Arab spring, 81.2% of the population did not support the idea that religion should influence the manner in which individual’s vote during the election process. Accordingly, it is not mandatory for religious people to occupy various positions in public office.

3.2. Arab Millennia Development Goals

Countries in the Arab region have made significant strides in achieving various Millennium Development Goals. For instance, literacy and enrollment in primary schools has improved. A majority of countries in the region are closing the gender gap that exists while enrolling in tertiary, secondary, and primary education. Regardless these achievements, countries in the Arab region are left behind on achieving significant targets, to be precise those connected to food insecurity, hunger, enhanced sanitation in non-urban areas, access to clean drinking water, maternal and child mortality. The region since 2010 has experienced political conflicts and volatility which are thought to be triggered by increased poverty levels among the population (UNDP, 2015). There is disparity within countries, across countries, and across sub-regions in terms of achieving the millennium development goals. This trend in the region is attributable to a wide range of factors including weak infrastructure, lack of adequate finances, and increased conflicts. These are some of the barriers that countries in the Arab region including Saudi Arabia needs to overcome in order to be stable economically and business wise. According to League of Arab States (2015), the most economically advanced countries are in the Arab region. As a result, they have managed to realize many of the millennium development goals. However, these countries are facing various challenges such as gender inequalities and sub national inequalities. Therefore, this study is different from the literature since it will not only assess the economic growth due to oil but also from all the other sectors such as government spending on education, healthcare, defense, capital expenditures among others. The research will derive the relationship between labor induced productivity and its ability to transform the Saudi Arabia economy. The non-oil income will mostly be applied in Saudi Arabia as a better platform to gauge the importance of using domestic labor instead of the foreign workers and machine. Nevertheless, oil remains the largest contributor of the over GDP of the Saudi Arabia economy.

4. Research Methodology

A modification of the Rams (1986) will be used to determine the effect of the government expenditure on the economic growth of the country empirically. The framework is based on the two production protocols, the government G and the private sector P. The output of the government is determined by inputs of factors such as labor L and capital K. The production in the industry is determined by the government, capital, and labor. The production formulas are, therefore,

\[ P = P(L, K) \]
\[ G = G(L, K) \]

The total output \( Y \)
Y=P+G

To derive the productivity of labor and capital, and its effect and contribution to overall GDP growth, decomposition is formulated. The overall country GDP is subdivided into labor, capital, and productivity. The total factor productivity (TFP) is calculated through a technical progress. To calculate labor productivity, the other factors such as a competitive market is held constant while the neoclassical production model is used to calculate the productivity of every input towards the total growth. The production function to calculate the rate of increase is

\[ Y = AK^\alpha L^{(1-\alpha)} \]  
\[ \dot{Y} = A + (\alpha \dot{K}) + (1-\alpha) \dot{L} \]

Equation one shows that Y is the rate of output, ‘A’ represents the TFP growth rate, and output elasticity is α which is equivalent to top the share of the capital income given by the ratio of K to L.

The Y, L, and K in equation two display the growth rate of output, labor force, and capital formation. The human labor in this study is determined by the level of education attained although that is not the realistic job market. The equation, therefore, can provide a strict measurement of labor and capital and the amount each contributes to the total GDP. An analysis of the contribution of labor is derived from its growth rate in respective to the total output.

The growth accounting model is applied when decomposing the overall growth into labor and capital components. The explanation shows the use of input growth and technology to increase the efficiency of production (Jermann, 1997). Since time series data is used the calculation limits the other econometric models that could otherwise be used. The growth rate serves as the dependent variable while the independent variables are a ratio of GDP, the gross domestic investment which is believed to give positive economic growth, terms of trade, the natural resources, inflation, individual incomes, and human capital. The majority of the previous works show that labor is positively realized to the economic growth. The input of labor is tangible despite the fact that the marginal rate of return gets to a point where it starts declining. However, rampant employment can reduce the decrease of marginal return of the human capital (Malik & Awadallah, 2013). Human capital has a positive effect on the economic growth. Moreover, there are other factors such as the bank credit and the exchange rate that are used to explain the economic growth (Niblock & Malik, 2007). The study was solely based on the increased labor productivity and how it can help the Saudi Arabia to transform their economy. The results will, therefore, be based mostly on the contribution of labor to the economic growth.

5. **Results and Findings**

The results from neoclassical production show that the capital productivity is spread. However, the TFP growth rate declines after 2013, evidence that the money acquired is not used efficiently. The revenue received from oil decreases after 2013 because of the fall of the
oil prices globally. The main source of the wealth creation in Saudi Arabia is the oil; hence fall of total GDP the means that the revenue acquired is not later distributed to the other sectors. The country seems to have a less rate of productivity since the majority of its investments are capital intensive. There is less labor involvement in the production. The majorities of workers in the country are foreigners and are paid way less than the Saudi nationals. Only about 20% of the laborers in the Saudi Arabia are Saudi nationals, as depicted in figure 1.1, whereas figure 1.2 highlights the relationship between the labor and economic growth. The majority work in family businesses where they hold high positions such as the chief executives (CEO) with workers from foreign countries. Women in this country stay at home taking care of children, whereas, with foreign workers too to do the house chores for them imported from abroad (Zamberi, 2011).

[Figure 1.1 here]

Al-Filali & Gallarotti (2012) stated that increased productivity is not the primary issue to be dealt with in the Arab nations but the economic and the external factors such oil shocks.

[Figure 1.2 here]

Saudi Nationals are paid more compared to foreign workers or counterparts in developing countries even though Saudi National do not occupy technical or highly specialized occupations. The table 1 below shows that increase in salary was higher for Saudi Nationals than other category of workers in various countries.

[Table 1 here]

5.1. The Relationship between Labor and Economic Growth

According to Ramady, (2010) the Saudi Arabia faces two main challenges that put its economy to test. The primary external factor is the prices of oil which are the kingdom main source of finance. The oil market although it has boomed for a decade, it is volatile. The price has dropped since 2014, and there is increased competition globally. The competition the country faces are from new sources of energy such as US Shale oil. The country market is already shifting, and it is evident as it recorded a decline in 2014. In 2015, the prices of oil remained relatively low. The other challenge the country faces relates to its demographics. The majority of the Kingdom population is young below the age of 25 years which is likely to form a labor force of about 4.5 million by 2030. The populations will double the current labor force, thus, demanding the country to create more jobs to fill the empty positions. There will be a large number of older people calling for support from the younger generations in critical healthcare and financial systems. The demographic changes incorporate both the highly paid Saudis and the low paid workers who come to work in the country. The country also needs to build on its private sector since it seems weak to absorb and create job opportunities for the Saudi national citizens.
6. Discussion

According to Ali, (2009), the Saudi Arabia is a stable country regarding the exchange rates, openness, and inflation mostly because of the dictatorial leaders who determine the prices of the goods and services within the kingdom. However, the growing population is a threat to the economic stability of the country. The government is required to come up with a proper plan to absorb the excess labor by 2030. The oil industry alone cannot be able to create all the necessary jobs, and thus, it is at this time the government should start investing in sectors that absorb many employees such as education and health. For instance, hospitals are labor intensive since the number of health workers is determined by the size of population and infrastructure. The aging population also is a large number which calls for many doctors and nurses to take care of them at old age.

The country also has set policies and programs that they plan to use to enable the success of their economic growth. The citizens are vibrant and ready to develop their country from all angles. The citizens have a real foundation of the Islamic teachings and values that are fundamental building blocks to the families, businesses, and protection of the society for future generations. The principles and values foster unity and trade relations. The kingdom has a flourishing retail sector which currently employs about 1.5 million workers. Unfortunately, only 0.3 are citizens of the Saudi Arabia. The retail sector has an annual growth rate of about 10% which is mostly linked to the traditional retail sector. The retail market has the little penetration of modern trade and e-commerce. The government plans to modernize the local, international, and regional channels of trade to increase production within the country. In their vision 2030, the Kingdom also plans to finance more retail enterprises that will foster economic growth rate (Mckinsey Global Institute, 2016).

Accordingly, the Ministry of Labor is implementing new laws to enhance the productivity of both foreign and domestic workers. For instance, local firms are being restricted by the Saudi Ministry of Labor from submitting applications that permit the relocation of the expatriate staff services, especially if the transfer is more than once. It does not matter whether or not the transfer is originating from a new firm where the expatriate worker is offering his or her services. Based on the computerized system implemented by the Saudi Ministry of Labor, an application for relocation of expatriate services is cancelled three months following the date of dropping the application. After the application is cancelled, local firms are not expected to apply for the relocation of workers from the company to the other. However, this is only permissible for firms in platinum or high green zones.

The ministry of labor in 2015 also implemented a new labor law revolving around saudization privileges, training, labor contracts, inspection mechanisms, and employment of women (Riyadh, 2015). Besides, the new labor law safeguards the rights of workers in the private sector as well as limit violations that impact on the employers and worker’s rights. The aim of the new labor law is to improve the work environment and consequently, the economy of the country. Through the new labor law, companies get incentives for being corporate social responsible towards Saudi young women and men. Workers too are given incentives that aid them in finding new employment opportunities once their contracts are terminated for various
reasons. The law also puts emphasis on the occupational safety principle and its significance in developing and organizing work environment. The principle also warns women to shun dangerous and harmful occupations. Through the new law, both non-Muslim and Muslim women employees are granted maternity and pregnancy leaves (ref). The new labor law also encourages the private sector to employ Saudi Nationals.

6.1. Key Amendments on the Labor Law

6.1.1. Work Organization/Internal Regulations Rules

All employers in the Kingdom of Saudi Arabia are expected to design internal regulations regardless the number of their employees. However, the law has not made it clear whether the ministry of labor will have to approve the Internal Regulations. Organizations are expected to adhere to the Model provided by the Ministry of Labor in designing the regulations.

6.1.2. Probationary Period

An employee in the Kingdom of Saudi Arabia at the moment is subjected to a probationary period of three months. During this period, an employer exhibits the right to terminate the employee without notice. However, the probation period can be prolonged to six months as per the employee consent. The primary purpose of the probation period is to permit employers to assess the employee whether or not he/she is competent for the advertised role (Crossley et al., 2015).

6.1.3. Saudi National Training

Organizations with more than 50 employees are mandated to train Saudi employees on a yearly basis. The training takes into consideration paying Saudi employees study fees regardless their place of studying. Other areas amended by the new labor law include relocation of worker, employee reference/service certificate, employment termination, working hour, leave, wages, whistle blowing and labor violations (Crossley et al., 2015).

7. Conclusion

The paper has contributed to the fact that increased labor productivity will improve the overall development of the economy. Increased productivity is positively correlated with the economic growth. The demographic changes in the kingdom together with the fall of the oil prices are a danger to the Saudi economy, and thus, the country will be required to formulate development models that foster increased labor productivity. The state population is growing rapidly, and hence, the kingdom should create channels of absorbing them into the workforce. The oil prices are falling, on the other hand, thus reducing the household income that was realized from a sale of oil. The citizens are required to venture in other business platforms such as health to maintain the substantial economic growth. The kingdom has to come up with models that cater for the employment to maintain the current living standards of their citizens.
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Corresponding Author
Dr. Nadia Yusuf (Indian national), is doctorate in Economics, and her major is Microeconomics. Her thesis was based on the role of lead bank in financing the agricultural sector in India, with reference to Aligarh District. Presently, working as an Associate Professor, at Economics Department in King Abdul-Aziz University, Jeddah, K.S.A. With more than 11 years of experience, teaching has become a passion for her. She teaches students using a systematic plan of lectures, demonstrations, discussion groups, laboratory work, shop sessions, seminars, case studies, field assignments and independent or group projects. Her postal address is, Dr. Nadia Yusuf, Associate Professor, Faculty of Economics, King Abdulaziz University, Jamia Street, P. O. Box – 42795, Jeddah 21551, Saudi Arabia. And email id is nadiayusuf112@hotmail.com

References
Figures and Tables:

- Workers

![Graph showing labor market progression](image)

**Fig 1.1** The labor market

**Fig. 1.2** The relationship between labor and economic growth, Saudi Arabia
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<th>Saudi Arabian</th>
<th>Developed Country</th>
<th>Developing Country</th>
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<td>Over 11%</td>
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<td>1</td>
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<td>6-10%</td>
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