

Economic Impact of Privatization of Healthcare in The Kingdom of Saudi Arabia (2012-2021): A Systematic Review

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ABSTRACT

Background:A host of factors ranging from economic to social to political has pushed the Kingdom of Saudi Arabia to formulate new policies that would improve the economical situation in the country. One of these changes, as highlighted by the Vision 2030 plan, is the privatization of a number of sectors. It is expected that this act would bring in not only better efficiency in services and quality goods, but also generate more revenue for the country. At the same time, the plan attempts to distance Saudi’s long-term reliance on oil for profits, and this requires a good deal of investment in the private sector. The purpose of this systematic review is to measure the amount of impact on the economy due to the privatization of the healthcare sector by analyzing the change in economical indicators.

Study type:Systematic review

Methods:A systematic review was done by discovering articles from the RePEc database via MPRA and Econpapers archives from 2012 to 2021. Keywords such as “Privatization”, “Healthcare”, “Economic impact”, and “Saudia Arabia”, were used separately and in combination. This generated only a few relevant results, out of which only 9 articles were finally included in the study. The inclusion criteria included data related to economic changes as reflected by certain indicators e.g GDP, inflation, unemployment, etc.

Results:GDP initially reached a high in 2019 but fell in the following year. The annual GDP rate has been falling since 2012. While inflation has followed no consistent pattern and increases or decreases. Unemployment has been steadily increasing and experienced a spike in 2020. More budget has been allocated to the healthcare sector, but the amount of profit from this sector still hasn’t been properly measured.

Conclusion:All of the above findings are not proven to have any significant association with the act of privatization of healthcare, and may be due to numerous other factors that affect the economy. Most of the currently available literature focuses more on the effects of healthcare itself due to privatization. A more centered research endeavor must be launched to determine just how private healthcare is affecting the economy.

INTRODUCTION

What led to the current strains in the economy?

To understand the current socioeconomic plight that gave birth to the Saudi 2030 Vision, a general overview of the financial status of the country since the early years is necessary. Since the 1970s, the majority of the revenue of the Kingdom of Saudi Arabia (KSA) comes from oil. As of 2017, it is second to Russia in being the largest crude oil producer in the entire world (The Independent, 2017). The petroleum sector generates 87% of this revenue, and furnishes 42% of the Gross domestic product (GDP), all the while contributing to 90% of exports (Forbes, 2017). With such a heavy dependence on oil, in response, the government reduced subsidies on petroleum products and planned a further increase in revenues by listing shares of government-owned petroleum companies (Kerr & Omran, 2018). To illustrate the positives in the financial situation of the country, in 2016, the unemployment rate was only 5.6%, the inflation rate was only 1.7%, public debt was at 13.2% and the country's GDP represented 1.04% of the world economy (16 Economics, 2017).

Despite this lavish amount of income, expenditure has also increased in the country. As of 2010, there has been a 1700% increase in expenditures (due to higher standards of living) since 1970 (Alshahrani & Alsadiq, 2014). To add more burden to the situation, the budget deficit has been gradually increasing from 2014 when it was only 2%, to 8.9% in 2017 (37 Economics, 2017). It has tried to counteract these changes by reducing government spending, withdrawing subsidies from the energy sector, and putting more weight on non-oil revenues (7). Ultimately the economy has entered into a stagnant phase, where growth is only 1.4% (as of 2016) (13, 2016). This is where health care has also been affected. A multitude of factors, including the increased prevalence of chronic illness, and a drive to match foreign healthcare services, has increased costs in the healthcare sector. Only 14% of the total government budget is allocated to this sector (37 Economics, 2017), and while it is still capable of increasing this amount, it has failed to do so due to constrained resources on one hand and an exponential increase in expenditure on the other.

A solution to the above predicament comes in the form of privatization, which the country has previously done with the power sector, telecommunication sector, and natural gas exploration. Now it is looking forward to expanding the privatization of the health care and education sector, some of which has already been achieved (Forbes, 2017).

What other factors led to the privatization of healthcare?

There were a number of obstacles that were hindering the healthcare system in the country prior to 2012. There was a shortage of Saudi health professionals, while most foreign workers/expatriates encountered language and cultural barriers when dealing with patients (Almutairi, 2015). Diseases were also evolving, with chronic diseases like hypertension and diabetes being substantially prevalent among senior individuals (Saqib et al., 2017). The ministry of health tackled multiple roles instead of focusing on healthcare alone, and yet there was no national crises management policy nor a national health information system available for the public (Alkhamis, 2012). Despite the high demand for free services, there was also poor accessibility to the healthcare facilities (Alkhamis, 2012). Electronic health equipment/software like an electronic medical records (EMR) system were underutilized (Hasanain et al., 2015).

How does VISION 2030 impact healthcare?

Before the launch of Saudi Vision 2030, the kingdom was actually lagging behind in having any future economic roadmap and so tried to emulate its neighbor's plans and economic policies. Countries like Bahrain, Kuwait, and the United Arab Emirates (UAE) already had a Vision 2030 (Koch, 2017). The goal was to shift the Saudi economy into a knowledge-based society that would be self-reliant. This would help break the dependence on oil-based exports and push for the privatization of many aspects of the economy, including healthcare. It is exactly privatization that

Vision 2030 emphasizes for the transformation of the economy (Ministry of Planning and Economic Development, 2016). It was expected that this in turn would lead to increased patient satisfaction and an improved level of care amongst other boons (Ahmed, 2018).

The purpose of this systematic review is to see how the act of privatization of healthcare has impacted the economy for better or worse from 2012 to 2021. Data from this review can be used to paint an overall picture of how privatization reforms have brought financial changes in the country and also give the perspectives of both healthcare providers and patients in the same setting.

METHODOLOGY

A systematic review was carried out by identifying articles from the Research Papers in Economics (RePEc) database via Munich Personal RePEc Archive (MPRA) and Econpapers archives. Only articles relevant to the study for the time duration between 2012-2021 were picked. Using the Boolean operations "AND," and "OR" the following keywords: "Privatization", "Healthcare", "Economic impact", and "Saudia Arabia", were used separately and in combination. The reference lists of the included articles were also hand-searched for any pertinent data that may have been overlooked. The preliminary screening resulted in (56) records from MPRA, (50) records from Econpaper, and (298) records via google scholar, but studies involving non-English language were excluded. Moreover, because of the sheer volume of results generated from google scholar (more than 16,000), a filter of 'review articles only' was applied, which led to the current number of articles. After the removal of about (261) articles due to a mismatch of keywords and the presence of duplicates, each of the remaining (130) records were screened by title and abstract, from which only (13) matched the focus of the study. However, only (11) were retrieved successfully. Each article was then manually checked for eligibility via searching for the appropriate data items as per the inclusion criteria, and (2) were found

violating the inclusion criteria. Therefore, only (9) studies were included in the systematic review (**Figure 1**).

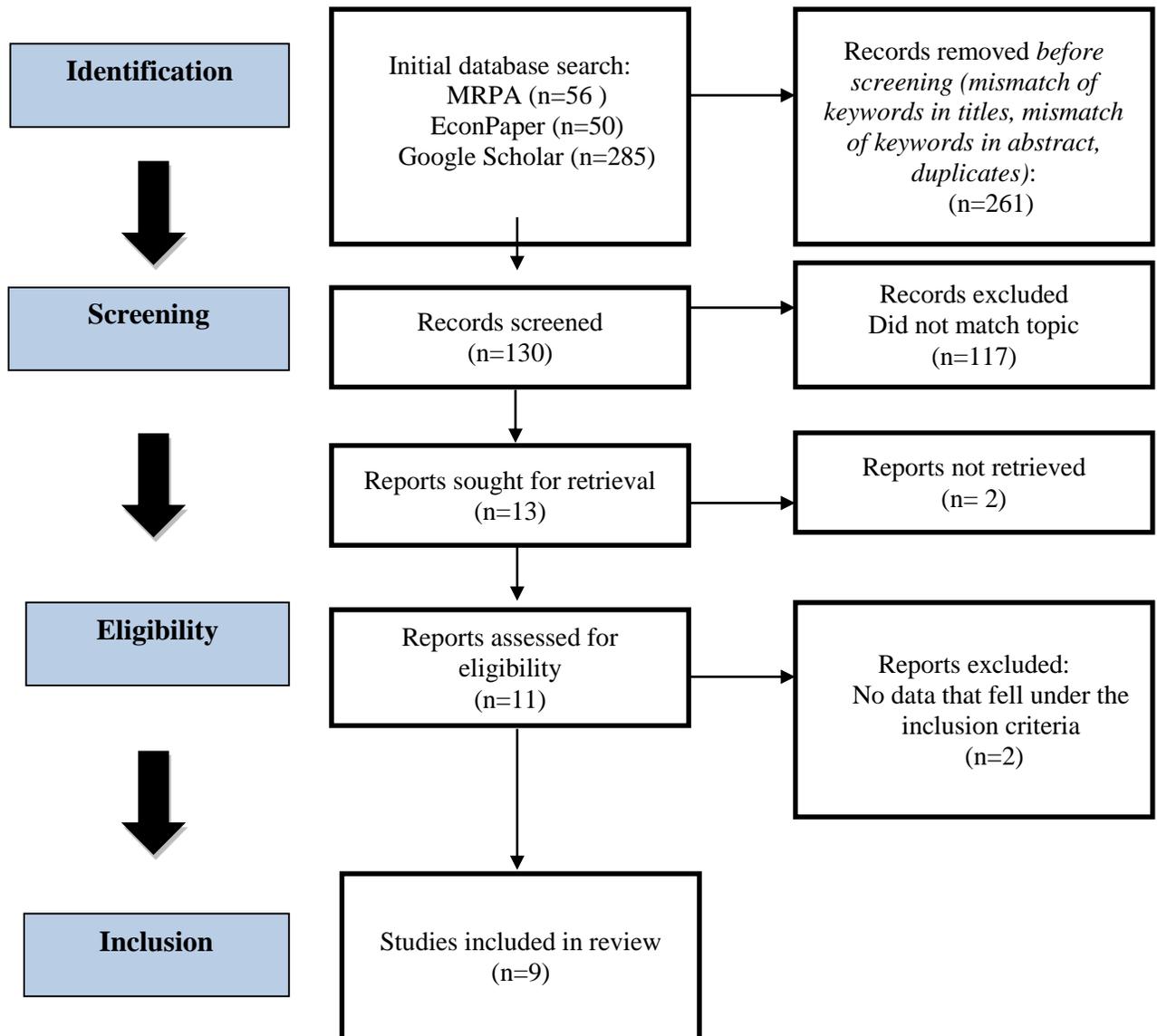


FIGURE 1: Placeholder for PRISMA flowchart showing the study selection process

1. Eligibility Criteria

The inclusion criteria for the studies were as follows:

1. All studies involving privatization of healthcare in KSA
2. All studies mentioning economic consequences due to privatization of healthcare in KSA

The exclusion criteria for the studies were as follows:

1. Any non-English articles
2. Articles focusing on privatization of healthcare in other countries
3. Absence of any economic indicators

2. Data Collection

Data extracted from the collected studies and results generated in this systematic review provided an upto date summary of the present literature regarding the economic impact of privatization of healthcare in KSA from 2012-to 2021.

3. Data Items

- Study Author
- GDP
- Inflation
- Budget allocation
- Budget deficit
- Healthcare costs
- Subsidies or taxes implemented

4. Information Sources

1. MRPA (2012-2021)
2. EconPapers (2012-2021)
3. Google Scholar (2012-2021)

5. Search Strategy

Following the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines (Page et al., 2021), eligible articles were discovered via the above-mentioned databases using specific keyword arrangements. The list below shows the keywords used in different combinations:

1. Privatization AND Saudi Arabia
2. Healthcare AND Saudi Arabia
3. Privatization AND Healthcare AND Saudi Arabia
4. Privatization AND Healthcare AND Saudi Arabia AND Economic impact

6. Terminology/Definitions

KSA: Kingdom of Saudi Arabia

UAE: United Arab Emirates

MPRA: Munich Personal RePEc Archive

PRISMA: Preferred Reporting Items for Systematic Reviews and Meta-Analyses

PPP: Public-private partnerships

GDP: Gross domestic product

SAR: Saudi Riyal

USD: United States Dollar

RESULTS

After searching through several databases, our study was able to include nine studies in the final review. Most studies described privatization of the healthcare sector as resulting in an increase in GDP, a decrease in the budget deficit, an increase in expenditure in the health and social sector, and an overall increase in revenue generated. While the annual GDP amount initially reached a high in 2019, it ultimately fell in 2020 (**Figure 2**). At the same time, the annual GDP rate has fallen into the negative zone (**Figure 3**). Inflation has been fluctuating ever since 2012, and currently remains comparable to the rates as it was back then (3.1% in 2021 vs 2.9% in 2012) (**Figure 4**). The amount of expenditure in the health sector as of 2019 stands at 5.69 billion USD (**Figure 5**). While unemployment rate, measured as a percentage of the total labor force, experienced a sudden spike from 2019 to 2020 (5.6% to 7.7%) (**Figure 6**).

However, the studies did not give a clear association between these changes and the act of privatization of healthcare itself. The studies were ambiguous as to whether these changes were due to privatization as a whole or due to multiple factors such as public-private partnerships, foreign investments, policy changes, etc. Most of the studies focused more on the impact of healthcare and less on the economic changes brought about by the privatization of the healthcare sector (**TABLE 1**).

TABLE 1: Synthesis of findings from various studies looking at privatization of healthcare

Author	YEAR	FINDINGS	COMMENTS
Sajjad & Qureshi	2018	-Profit of the insurance sector rose to 154% coming to 2139 million Saudi Riyal (SAR). -2.7 million Saudis insured (22% of total insured) -Expenditure on health and social service increased by \$5 billion to reach \$32 billion in total.	Most of the review focused on the impact on healthcare itself instead of economy
Alkhamis	2016	The literature review found articles that recognized privatization as more ideological instead of an evidence-based	

		-Privatization did not improve out-of-pocket expenditures for poor people	
Rahman & Salam	2021	<p>As of 2019:</p> <ul style="list-style-type: none"> -GDP \$20912 -Inflation 2.46% - Public debt 18.98% -National budget is \$272 billion -The budget deficit was 174 billion SAR in 2018 (297 billion in 2016) -Healthcare expenditure \$46.66 billion in 2020 (35.4 billion in 2014) -Total government expenditures are \$287 billion 	The review mentions that despite privatization, because of the recent wars engaged by KSA (e.g Yemen), more budget was allocated to ear equipment instead of health and social development (SAR242 billion vs SAR174billion)
Rahman & Al-borie	2020	<ul style="list-style-type: none"> -14% of the total budget allocated to healthcare -In 2014, overall health expenditure was 4.68% of GDP -An increase in expenditure of the private sector equivalent to 25%-35% of the GDP -The total revenue from the private sector amounted to SAR300 million -Total investment by the private sector into the economy equaled SAR2.3 trillion -Five healthcare companies listed on the stock market currently, with a total capital investment of SAR3.66 billion (the last profit was SAR967 million) -The privatized health sector has contributed more than \$20.8 billion in 2015 	<p>The following is not directly brought about by the privatization of healthcare, but due to VISION 2030:</p> <ul style="list-style-type: none"> Increase in private sector input to GDP from 40% to 65% -increase in foreign direct investment from 3.8% to 5.7% -increase in non-oil export to GDP from 16% to 50%
Rahman	2020	The study declares that proof on the relative success, competence, and overall advantages of privatization of the health care sector has been	

		mostly unconvincing with no study sharing clear results in support of or against increased private sector contribution.	
Al-hanawi&Qattan	2019	The study discusses how certain privatization ventures are under the guise of public-private partnerships (PPP), and how this is a double-edged sword due to the dichotomous nature of the public versus private sector.	While the study doesn't directly elaborate on the economic impact of these PPP ventures, it does give a doubtful view of its contribution to the economy.
Al-hanawi	2017	The review presents a summary of the funding options available to the KSA but concludes there is no evidence to show that the best approach would be a privatized provision model that is also insurance-based. -Health expenditure per capita (PPP\$): 680 -Total health expenditure as % of GDP: 4.7 Per capita government expenditure (\$): 427 Government expenditure as % of all healthcare spending: 62.9	
Rahman &Qattan	2021	Few findings similar to the previous article "Rahman & Al-Borie, 2020"	
Rahman & A-lsharqi	2018	-%5 value-added tax (increasing cost of health care despite privatization) -healthcare expenditure is 35% of the overall budget -Max budget deficit of 14.8% of GDP	

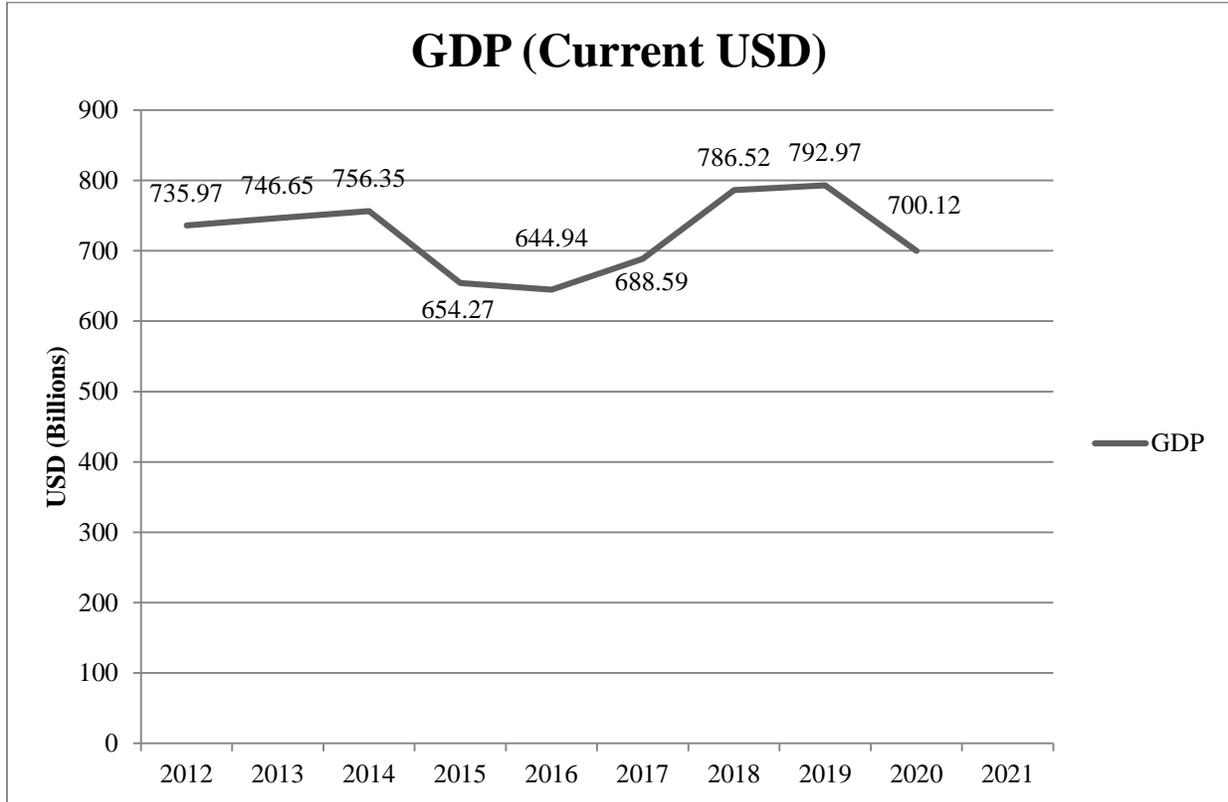


Figure 2: The amount of annual GDP in USD

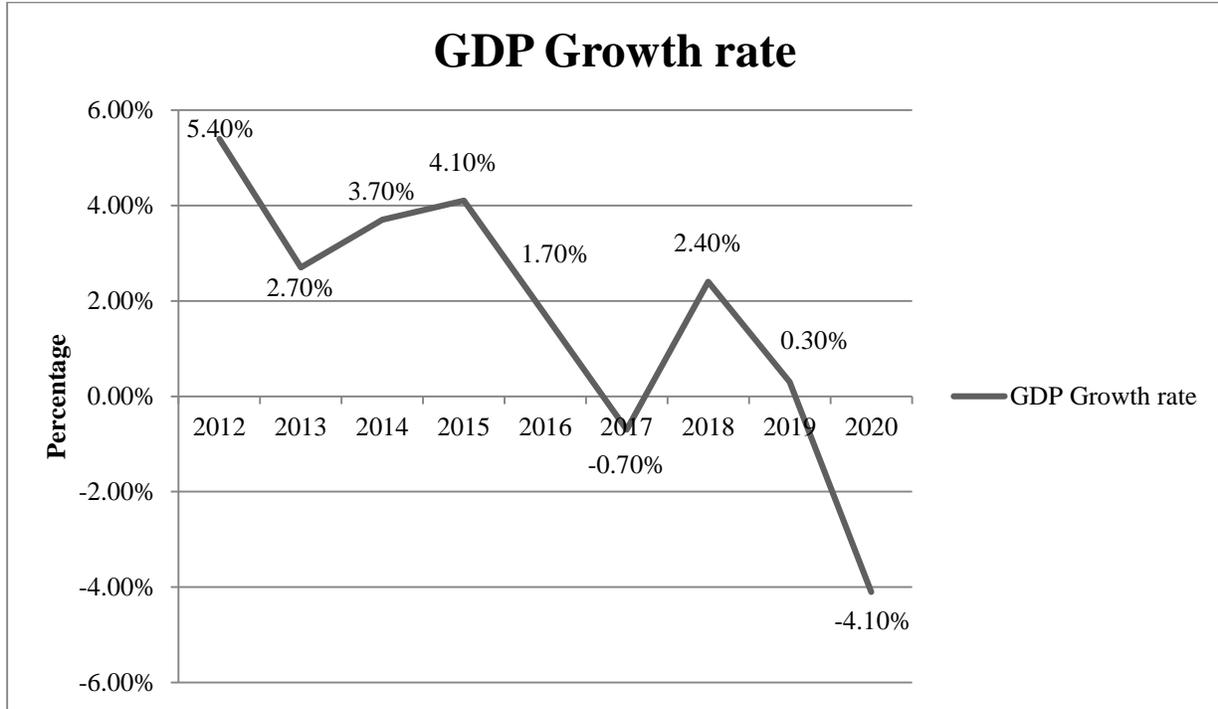


Figure 3:The annual GDP growth rate

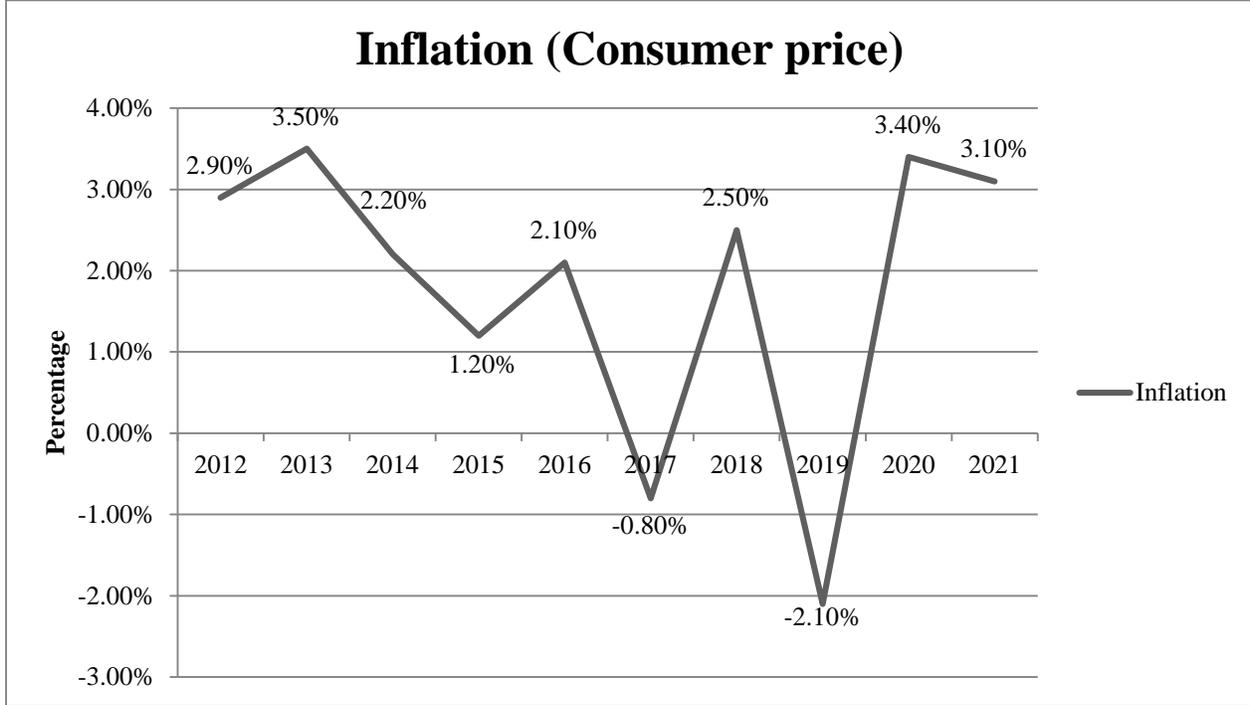


Figure 4:The annual inflation percentage

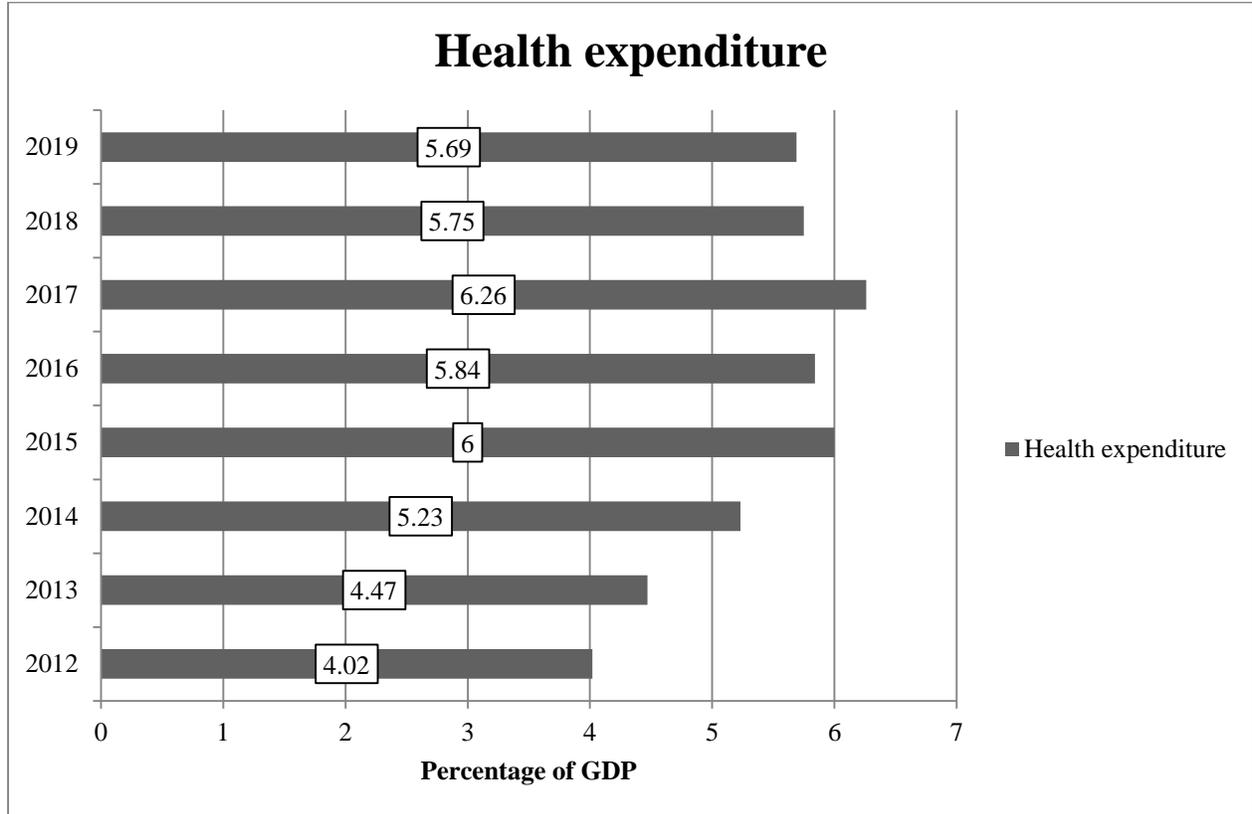


Figure 5: Health expenditure as percentage of GDP

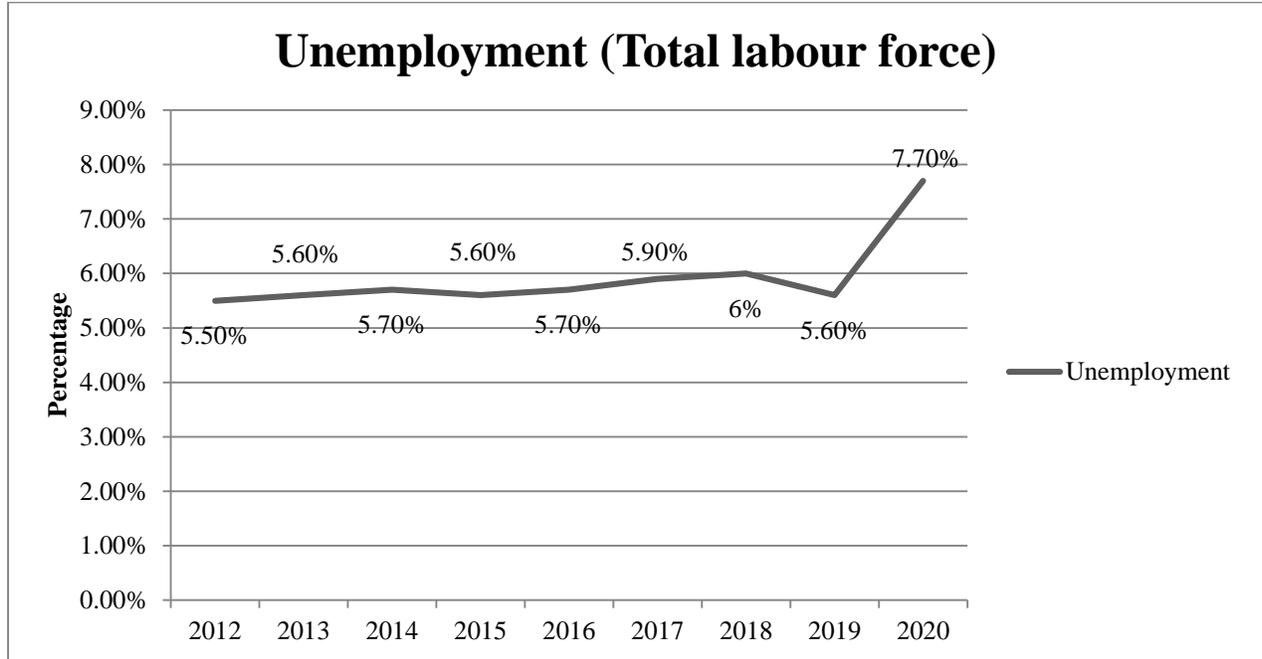


Figure 6: Annual total unemployment as a percentage of total labor force

DISCUSSION

Our review found that while privatization of the healthcare sector has brought many benefits, the majority of these are limited to the health of the population itself, and this is reflected in the health indicators such as life expectancy, the prevalence of disease, and an increase in the number of nurses and physicians employed (both local and expatriates). As for its impact on the economy, the economical indicators such as annual GDP amount show that while the levels are relatively stable, indicators such as annual GDP rate show a dramatic decrease. This may be due to the shift in dependence on revenue generated from non-oil-based goods, so it would take time for the rate to catch up. How much this can be directly attributed to the privatization of healthcare still remains to be seen. However, this review found evidence that not all effects of privatization of the healthcare sector are positive. These include a poor infrastructure and lack of formal registration (Bhate-Deosthali, Khatri, and Wagle, 2011), poor maintenance of medical equipment and the lack of trained personnel to utilize them properly (Das et al., 2012), more costly treatment prices (Hanson et al., 2008), and no decrease in the incidence of misdiagnosis (TIB, 2018), excessive prescription of needless medicine and tests (Rahman, 2007), profit-oriented patient management at the cost of the negligence of patient's health, and a lack of overall accountability (TIB, 2018). This may lead to patient dissatisfaction and ultimately decreased expenditure on private healthcare. The lack of business ethics in private healthcare can also impact the economy negatively (Nurunnabi & Islam, 2012).

The inflation rate of the Saudi economy is constantly fluctuating. Our search in literature narrowed down the cause to primarily two factors (by most economists): the demand-pull factor and the cost-push factor (Nazer, 2016). The former happens when demands for goods and services exceed the country's production capability, while the latter happens when the prices of production increase, and these can be either increased cost of raw materials or increased wages. For Saudi Arabia, the latter factor seems likely because the country has increased the cost of oil thereby causing a lowering of the value of the US dollar. This happens because when oil becomes

more costly to import into the US, this widens the trade deficit; hence, the worth of the US dollar declines. To give an example, in 2007 the US imported oil at the cost of \$331 billion, and this was 47% of the trade deficit. If oil prices were fixed, then the US would have only spent \$179 billion, and the trade deficit would have been much lower (Feldstein, 2008). As for the privatized healthcare sector, while this review found no evidence exists of its influence on inflation, inflation itself can have an effect on that sector. As explained by Mohamed Ramady, there are three ways inflation can affect the economy: fiscal, political and economic (Ramady, 2009). When inflation rises, the currency loses purchasing power, and this will cause a reaction in the staff working in the privatized sector to demand higher wages, subsidies, and welfare payments as compensation. The government would have a difficult time maintaining fiscal authority. This would then cause more investment into the healthcare sector as seen in **Figure 5**. Privatizing hospitals would also increase the demand for efficiency from the staff and this would prompt them to further demand higher salaries. This ends up as a vicious cycle where more inflation encourages more wage hikes and ultimately leads to strikes or even political unrest (Ramady, 2009).

Unemployment, as a percentage of the total labor force, was mostly stable from 2012 till 2019 but experienced a sudden spike in 2020. This review found several possible theories for this change. The first is the inflation-unemployment relationship as explained by the Economist “Philips”. Any attempt to counteract changes in inflation invariably leads to further unemployment. However, a study looking into the tradeoff between inflation and unemployment in Saudi Arabia, found that there was only a significant relationship in the long-run and not in the short-run (Bokhari, 2020). Another theory is the effect of sudden and extreme oil price changes on the economy and ultimately unemployment rates. A study examined the economy with respect to two variables, demand, and supply. The results showed a sudden oil price shock affected several variables of the economy and this lead to either an increase or a decrease in rate of unemployment in Saudi Arabia (Almutairi, 2020). A third possible cause is the ever-increasing population of youth in the country and their attitude towards getting a job versus their aspirations of obtaining a position in a

government office (Albrithen, 2018). This growing number of unemployed youth adds to the rates we have seen in **Figure 6**. This review however was not able to find privatization as a contributing factor to the unemployment rate.

CONCLUSION

A lot of the articles give no concrete evidence of a causal relationship between the privatization of healthcare and the economic changes. In fact, there are multiple factors that affect the economy but none from the private healthcare sector have been properly gauged. Moreover, several other articles reinforce the notion that there is no statistically significant evidence that privatization itself (in any sector) contributes to the changes in the economy. Despite this, it is clear the economy of Saudi Arabia is still undergoing a transition from the old system to a modern knowledge-based economy. Whether the economical indicators begin to show more positive trends by 2030 is something that can only be determined then. Until then a more focused research is required that measures and analyzes the impact of the privatization of the healthcare sector on the economy.

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