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THE WEAK LEVEL OF IRAQI HUMAN CAPITAL ACCORDING TO THE INDICATORS OF THE WORLD BANK

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ABSTRACT

The aim of this study was to shed light on the weakness of Iraq in utilizing its human capital and to examine the future productivity of the Iraqi workforce and its implications for long-term economic growth. The study also sought to identify the indicators used by the World Bank to measure human capital investment. Therefore, the research problem focused on the crisis of Iraqi human capital and the low productivity of the next generation of the workforce due to the lack of attention, inadequate investment, and insufficient training and development programs that align with the rapid technological advancements. The study concluded that Iraq possesses a demographic dividend, but this dividend is being wasted, as the human resources and capabilities are not being utilized effectively to enhance future economic growth. This leads to the creation of a generation incapable of keeping up with the rapid development, primarily due to low expenditure on education and healthcare compared to other developing countries. Secondly, the study identified the mismatch between the outputs of education and the needs and requirements of the labor market, which ultimately results in the limited contribution of human capital towards achieving long-term productivity. Consequently, Iraqi human capital lags behind in terms of development, creativity, and innovation compared to the rest of the world. Moreover, the mismatch between educational outputs and the needs and requirements of the labor market leads to a diminished contribution of human capital to achieving long-term productivity. This results in Iraqi human capital falling behind in terms of development, creativity, and innovation compared to the advancements made by countries worldwide.

Keywords: Human Capital; World Bank Project (HCD); Human Capital Investment; Economic Growth.

IJRSSH

Research Objective:

The objective of this study is to shed light on Iraq's weakness in investing in its human capital and to examine the future productivity of the Iraqi workforce and its impact on economic growth. Additionally, the study aims to assess the modest gains achieved by Iraq in the health and education sectors, diagnose the causes of the identified weaknesses that hamper the productivity of Iraqi human capital, and identify the indicators used by the World Bank to measure human capital investment.

Research Importance: The importance of this research stems from being one of the contemporary central topics related to growth. The study aims to investigate the key factors that enhance the future productivity of the Iraqi workforce to contribute to achieving high rates of economic growth. Particularly, considering that Iraq, as a rentier state, has yet to effectively utilize its natural resources to enhance and improve human capital. Therefore, addressing this research topic can assist decision-makers in integrating the importance of human capital into driving and accelerating the process of economic growth. Additionally, it aims to assess the extent of waste in these resources.

Research Hypothesis:

To address the research problem, two main hypotheses were formulated:

- Human capital is the cornerstone for achieving economic growth.
- The crisis of human capital investment in Iraq can be attributed to the weak investment in the health and education sectors and the decline in expenditure on these sectors, which has implications for the country's economic growth.

Research Methodology:

To achieve the research objective and test its hypotheses, a descriptive and analytical methodology was employed to determine the extent of the weakness in Iraqi human capital productivity, its causes, and its outcomes.

Research Structure: To achieve the research objective, this paper is divided into three sections. The first section provides a conceptual framework on human capital and its importance. The second section examines the indicators of human capital investment according to the World Bank. The third section addresses the weakness of human capital investment in Iraq according to the bank's indicators and its impact on economic growth.

INTRODUCTION

Investment in human capital ranks among the forefront of issues that societies are concerned with. The human element is not only a factor of production and productivity determinants but also the main driver for ending extreme poverty and creating more inclusive societies. Investing in human capital requires nutrition, healthcare, quality education, jobs, and skills. Without human capital, countries cannot sustain economic growth, lack a workforce prepared for future skill-demanding jobs, and fail to effectively compete in the global economy. Therefore, many countries worldwide have sought to prioritize human capital, its development, and investment due to its significant impact on long-term economic growth. Accordingly, this study aims to examine the crisis faced by Iraq in its inability to enhance the productivity of its human capital.

CHAPTER 1: HUMAN CAPITAL AND ECONOMIC GROWTH - A CONCEPTUAL FRAMEWORK

Firstly, the concept of human capital refers to a collection of cognitive attributes, talents, skills, abilities, experiences, and individual characteristics that facilitate personal, social, and economic well-being. These resources represent the total capacity of a society,

which can be directed towards achieving the goals of a nation, state, or a desired part of those goals (OECD, 2011, p. 7). However, this wealth must be properly equipped and prepared to possess the potential, skills, abilities, and capacities. This can only be achieved through obtaining sufficient education that creates the knowledge capital they offer in the workplace, as well as health and employment. UNICEF defines it as the stock possessed by a state of healthy, educated, competent, and productive population, which is a key factor in assessing its potential in terms of economic growth and enhancing human development (Arabi, 2007, p. 55). Human capital is a dynamic and multidimensional concept characterized by strong interconnections with other important concepts such as intellectual capital, social capital, and human development. However, it differs from them in that it focuses solely on the human element as one of the main determinants of the economic growth process (Abu Al-Azz, 2019, p. 3).

Secondly, the concept of human capital investment refers to the allocation of expenditure on individuals in the workforce in a way that achieves an economic return, represented by the added value that the human element contributes to production. The investment process achieves sustainable

human development, which in turn leads to economic and social development, along with creating an appropriate environment that enables giving, achievement, and maximizing peak productivity, resulting in economic benefits for both the individual and society. In order to build a knowledge-based economy, it is necessary to prioritize and develop the human element, making it a national priority. Investment in human capital, like other aspects of investment, requires continuous support, planning, and scientific monitoring (Mukhtar, 2019, p. 30). In other words, it is spending on human beings to improve the quality of the human resource, thereby increasing productivity and subsequently their income. The return on this investment is reflected in future increases in income and productivity. Human capital is measured by several indicators adopted by international organizations or economic studies (Amora, 2019, p. 332).

Thirdly, the importance of investing in human capital lies in the fact that the development and investment in human beings involve harnessing their potential, increasing their productivity, maximizing their value, and raising their status in order to creatively utilize them through optimal utilization of all economic resources. The concept of human capital development is related to increasing

the production of goods and services, just as is the case with physical capital. It holds significant importance for the growth of the Gross Domestic Product (GDP) and enhances its significance. Investing in human capital does not only mean achieving economic growth but also means achieving a social goal that targets individuals by deepening values, principles, and social behavior to achieve comprehensive development. From this perspective, the importance of investing in human capital becomes evident in delivering educated human outcomes that encompass profound cognitive thinking (Al-Assiri, 2017, p. 960). Human capital holds great importance in achieving economic growth and development, as it plays a vital role in the development of the local economy and reducing poverty through the development of human resources and the enhancement of innovation and talent capabilities.

Fourthly, the concept of economic growth refers to the continuous increase in per capita real income over time (Atiya, 2003, p. 11). Economic growth is also defined as an increase in the Gross Domestic Product (GDP), which represents the increase in the total national income in a way that achieves an increase in the average real income per individual. This means that economic growth does not only imply an increase in the GDP

alone, but it should also result in an increase in real income. In other words, the growth rate must exceed the population growth rate. In some countries, although the GDP increases, the population growth rate is higher, hindering the increase in the average real income per individual and thus not achieving economic growth despite the increase in the national income (Ibrahimi, 2013, p. 11).

Fifthly, the reflection of investment in human capital on economic growth is manifested through innovative behavior and the generation of new ideas. It involves the accumulation of knowledge that contributes to increasing productivity and the efficiency of the workforce by increasing the intellectual stock of economically productive human capacities. These theories consider the accumulation of human capital as one of the key determinants of economic growth through investment in education and training (Anawi, 2017, p. 261). The overall impact of investment in human capital on economic growth lies in the development of human resources and the enhancement of innovation and talent capabilities, which are important factors in driving the dynamics of development. The development of the human element, both physically and mentally, and its effective utilization through a mentally and physically healthy individual, along with

education, research, and development, ensure the provision of a fundamental element of production and a key determinant of productivity. Knowledge and skills embodied in humans directly increase productivity, and the economy's ability to develop and adopt new technologies. A 1% increase in school enrollment rates leads to an increase in per capita GDP growth between 1% and 3%. An additional year of secondary education results in an annual increase of over 1% in economic growth (OIC, 2011, p. 1). The relationship between human capital and the economy can be examined through the following elements (Al-Musbah, 2008, p. 24).

- 1- Productivity is the true measure of a country's progress and backwardness.
- 2- Individual productivity is influenced by the amount and quality of education they receive.
- 3- The progress of any country depends on the value of knowledge within it, while its capacity depends on investing in its people through their possession of knowledge.
- 4- The preparation of a qualified and experienced workforce is considered the key to economic and social development.
- 5- Providing opportunities for individuals to innovate by discovering their hidden abilities, developing them, and employing them in a way that serves the country.

The specific impact is highlighted through the influence of education and health on economic growth by directly contributing to increasing GDP and per capita income. The educated, physically healthy, and trained human resource is the backbone upon which all economic and social development policies are based (Alawamleh, Bani, 2019, p. 6). The formation of human capital is linked to economic growth through (Falaq, Madah, 2017, p. 17).

1- Increased physical capital productivity: Human capital enhances the productivity of physical capital, as skilled and trained workers can better handle machines or technologies. Increased productivity and output lead to economic growth. 2- Innovative skills: Human capital facilitates the innovation of new production methods and techniques, which increases the rate of economic growth in the form of increased GDP. 3- Higher participation and equality: The formation of human capital leads to higher employment rates. With an increase in the workforce, productivity rises. Additionally, increased job opportunities raise income levels and help reduce wealth inequality.

Second section: The World Bank's Human Capital Project

Firstly, the World Bank Project is a global effort that serves as an indicator seeking to accelerate the pace of investment in human capital in terms of quantity and quality in order to promote economic growth and achieve equity. This is done through early childhood development and building the capacity of vulnerable segments to achieve several Sustainable Development Goals. The primary goal among these objectives is to end extreme poverty by 2030, followed by promoting shared prosperity in all countries, as well as encouraging sustainable and inclusive growth for all. Therefore, the importance of the human capital indicator lies in quantifying the contribution of health and education to the expected productivity that the next generation of the workforce can achieve, in line with the development goals by 2030. Countries rely on this indicator to assess the income they lose due to gaps in human capital and the speed at which they can turn these losses into gains if these gaps are addressed (The World Bank, 2022).

Secondly, Components of the Human Capital Index (HCI): The World Bank's composite index measures the value of human capital that a child born today can expect to attain by

the age of 18, taking into account health risks and the quality of education in the country. The World Bank's index consists of three fundamental components: survival, education, and health. These components are further composed of five indicators. By referring to Table 1, we observe that the first component has one indicator that measures the current and expected survival of children born today until they begin the process of accumulating human capital. This component is measured by the under-five mortality rate.

As for the second component (education), it encompasses two indicators that emphasize the quantity and quality of education. Indicator 2 measures the quantity of education as the number of years of schooling a child can expect to receive by the age of 18, with a maximum possible value of 14 years, representing the maximum number of years of schooling a child can receive by the age of 18 in a particular stage.

Table 1: Components of Human Capital and Indicators according to the World Bank

Components	Indicators
Survival	Indicator 1: Child Survival Rate
Education	Indicator 2: Number of Years of Schooling until Age 18
Health	Indicator 3: Quality of Education
	Indicator 4: Adult Survival Rate until Age 60
	Indicator 5: Percentage of Under-Five Children not Stunted

Note: The table presents the components of human capital along with their corresponding indicators as defined by the World Bank.

Based on the researcher's reliance on the World Bank report for the year 2018, pre-school education is measured at the age of four.

As for the quality of education, it is assessed through Indicator 3, using international student assessments that are transformed into a standardized measure of learning outcomes. These data are measured

using the Trends in International Mathematics and Science Study (TIMSS) program, where values range from 300 to 625 across all countries. Test scores are used to convert expected years of schooling into educational years that reflect the quality of education in addition to quantity (Gatti, 2014, p.14).

The composite indicator is constructed by taking the geometric average of the

aforementioned components, after transforming the previous dimensions into contributions to productivity indicators compared to high-quality education and health standards. The complete education standard is aligned with 14 years of schooling and a coordinated test score of 625, while the complete health standard corresponds to a 100% adult survival rate until the age of sixty with no stunting among children under the age of five (Bentour, 2019, p.24).

Table 2 illustrates that each component of the three components calculates its future contribution to productivity. For example, a country that scores 0.60 on the Human Capital Index indicates that the future income levels achievable by a newborn child will be 40% lower than what could have been achieved if they completed their education and enjoyed full health.

Table (2): Steps for Calculating the Human Capital Index and the Contribution of its Components to Productivity

First Component : Survival	
Under-five mortality rate	MR
Contribute to productivity as a future factor A	$A = 1 - MR$
Second Component: Study	
Expected years of schooling 0 to 14	YS
harmonized test score ranges from 300 to 625	DS
The rate of return on education for each academic year is 8%	Φ^*
Contribute to productivity as a future factor B	$B = e^{\Phi^*(YS \cdot DS / 625 - 14)}$
Third Component: Health	
Proportion of children not stunted Under five range (0 to 1)	US
Adult survival rate until age 60 (0 to 1)	AS
Contribute to productivity as a future factor C	$C = e^{-0.5*(y(1-AS)+\delta(1-US))}$
Human Capital Index (HCI)	
$HCI = A \times B \times C$	

Source: <https://openknowledge.worldbank.org/handle/10986/30498>

The components of the Human Capital Index are aggregated by first transforming them into measures of their contribution to worker productivity based on the complete education and full health standards. This approach follows the methodology of development accounting. The contributions of education and health to worker productivity are based on estimates of the returns to education and health. Since the Human Capital Index measures the productivity of the next generation of workers relative to the complete education and full health standards, and considering the returns on these investments, a dollar invested in reducing stunting generates economic returns of around 18 dollars in burdened countries. Additionally, the reduction in healthcare in low-income and middle-income countries will result in economic losses of up to 7 trillion dollars during the period of 2011-2025, equivalent to 4% of the annual output of these countries (UNICEF, 2020, p. 61).

Section 3: The Level of Iraqi Human Capital in World Bank Indicators

First: The reality of Iraqi human capital Demographic developments in Iraq:

The population of Iraq was estimated to be around 42.165 million in 2022. Over the past ten years, the population of Iraq has grown at a rate of 2.97% annually, which is

significantly higher than the population growth of the average middle-income countries (1.09% on average) and Western Asia countries (1.84% on average). By 2050, the growth rate is projected to remain positive at 45.1% (United Nations, 2019). The youthful population continues to be a key demographic characteristic of Iraqi society. Iraq is currently in the first stage of the demographic window of opportunity, characterized by an increase in the number of youth and the workforce. However, Iraq has not been able to convert this demographic dividend into economic opportunities due to its limited capacity to generate sufficient jobs to meet the growing demand for employment. Furthermore, the youth entering the workforce face deprivation of education, as only 51% of males and 45% of females are enrolled in secondary education, with lower completion rates (Both, 2023, p. 3). In addition to the widely observed demographic window of opportunity in Iraq, which occurs when the working-age population expands at a higher rate than the overall population, the expansion of the working-age population and the accompanying expansion of the labor force can represent a favorable condition for sustainable economic growth if the national economy can create sufficient jobs to accommodate the rapid and continuous influx

into the labor market. While Iraq has entered its demographic dividend, it has not succeeded in translating the demographic window of opportunity into a sustainable economic growth path or providing opportunities for Iraqis and expanding basic rights such as education, health, poverty alleviation, and its consequences. Achieving this transformation and a substantial boost in development will depend on Iraq's ability to harness demographic energy into productive efforts by generating sufficient and productive jobs, achieving a comprehensive and decent labor market for all Iraqis, and improving worker productivity through skills, automation, and supportive infrastructure (International Labor Organization, 2022, p. 6).

Secondly: The reality of the Iraqi labor market is characterized by the following:

1. Iraq is unable to create sufficient jobs to accommodate the rapidly growing workforce. The youth unemployment rate is estimated at about 32.1% for ages 15-24, with 62.1% for male participants and 62.1% for female participants (International Labour Organization, 2017). This age and gender dimension of unemployment rates in Iraq is associated with a decline in female labor force participation, which stands at only 10.6% compared to 68% for male labor force participation. The low participation rates

among female citizens, coupled with high unemployment rates, have prevented Iraq from translating its demographic dividend into economic opportunities. Among the 25.21 million working-age population, there are only 9.01 million workers (United Nations, 2019). Additionally, other sectors capable of absorbing labor are dependent on the financial surplus provided by the oil economy. Although the oil sector generates around 86% of the total commodity activities constituting the Gross Domestic Product in 2021, as well as over 90% of total exports, it only employs approximately 3% of the workforce. This makes it difficult to integrate women and the poor into the rentier economy (Ministry of Planning, 2019, p. 26).

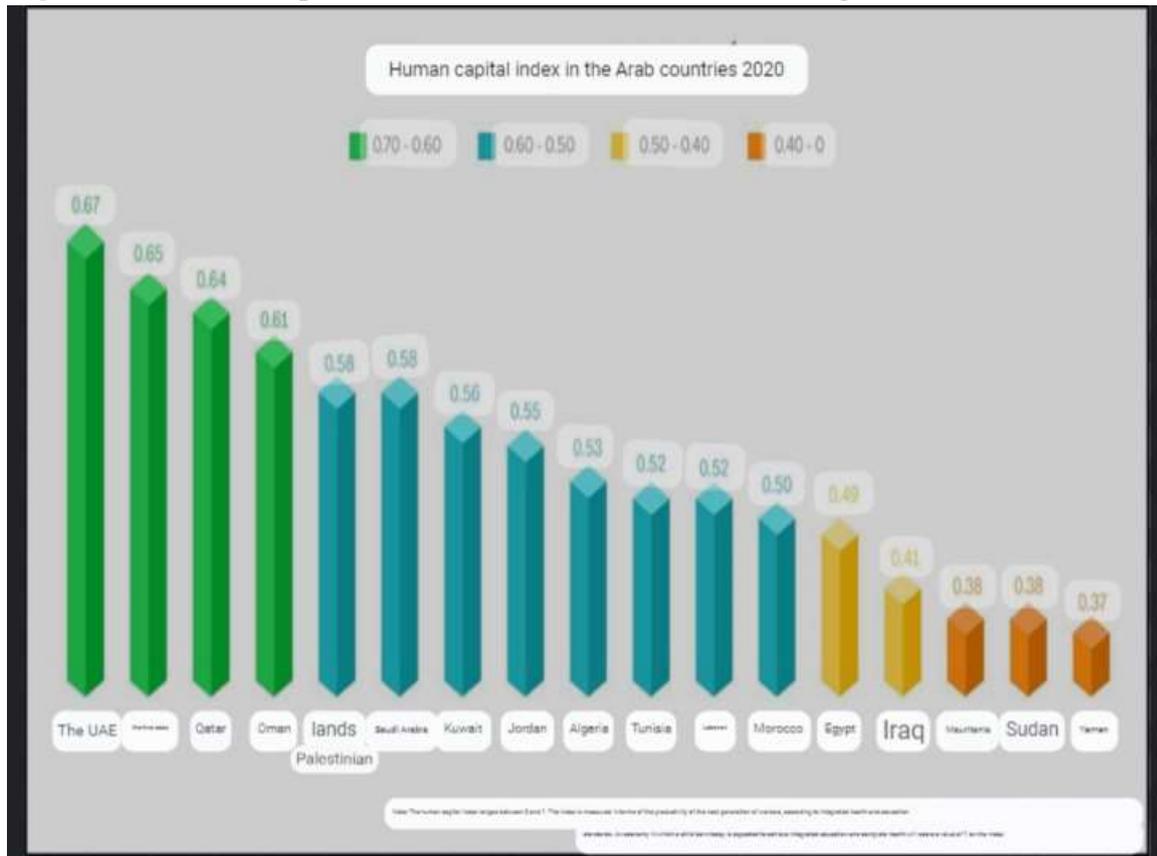
2. Weak employment in the private sector: The employment rate in the private sector remains low, at only about 6.61% of the workforce, compared to approximately 37.9% in the public sector. This disparity is due to the preference for working in the public sector, driven by wages and social security benefits, which negatively impacts the competitiveness and employment generation capacity of the private sector. One consequence of this distortion is the higher wage bill for the public sector compared to peer countries (International Monetary Fund, 2021).

3. Absorption of job seekers through state institutions, which are not predominantly productive, due to various governments' inclination towards economic centralization. This has put pressure on the state budget and led to the bloating of the government apparatus.

Thirdly: Iraq's level of human capital according to the World Bank's index:

1. Iraq's ranking in the World Bank's index is 143 out of 174 countries, with a score of 0.41, placing it at the bottom of the list compared to Gulf and neighboring countries. This is due to the modest gains in the health and education sectors considered in the index, as well as the decline in other key indicators. While the under-five mortality rate has decreased over the past two decades, it has not reached the level of neighboring countries and still represents double the average of higher middle-income countries. Moreover, the level of stunting among children in Iraq is much higher than in other countries in the region, despite lower income. In 2018, the average life expectancy at birth returned to the level it was in 2000, at 70 years. However, Iraqi citizens have not equally benefited from these modest gains (Khuraisan, 2020,2).

The weakness of the human capital index is primarily attributed to the inadequate achievements in education. According to current enrollment rates, it is expected that Iraqi children will only complete 9.6 years of schooling compared to 3.11 years in the Middle East and North Africa region. However, taking into account the actual learning outcomes during standardized exams, students in Iraq only acquire the equivalent of 4 years of schooling by the age of 18, compared to the regional average of 7.6 years. As a result, out of the total 6.9 years spent in school by Iraqi children, 2.9 years (40%) are considered wasted and do not translate into productive skills needed when entering the workforce. Based on Figure 2, a child born in Iraq today will, on average, achieve only 41% of their productive potential as they grow up. Therefore, this child will only receive 0.4 years of adjusted schooling based on the level of learning by the age of 18 (Khuraisan, 2021, p. 14).

Figure 3: Human Capital Index for Arab countries according to the World Bank's project

Source: World Bank, Human Capital Index 2020

As a result, 60% of the time spent by this child in school does not translate into productive skills when the child enters the labor market. The decline in human capital development, along with the lack of opportunities to acquire job-related skills, has led to the deterioration of economic and social outcomes. This includes a rise in unemployment rates, especially among the age group of 15 to 24 years, due to an educational system that fails to meet the skills required by the labor market today. Additionally, there are disparities in education sector distortions and geographic

disparities. Only 0.3% of rural children attend pre-school, which is equivalent to one-tenth of their urban counterparts. In middle school, only 35% of children from poor families attend compared to 77% from wealthier families. Similarly, only 44% of children from rural areas attend compared to 64% from urban areas (National Development Plan 2018-2022, p. 59).

Fourthly, the weakness of Iraqi human capital and its impact on economic growth are reflected in the following consequences:

1. The national economic losses reach a percentage ranging from 17.65% to 29.95% of the Gross Domestic Product in terms of the potential cash flow from the labor market that could have been generated if Iraqi youth between the ages of 19 and 26 had received education comparable to their peers in other countries throughout 38 years until retirement age. The potential cash flow over their years of engagement in the labor market would, on average, be higher than the current situation. The economic losses incurred by the Iraqi economy, by any measure, are substantial (Booth, 2023, p. 2).
2. The society loses material returns due to decreased productivity, which directly

impacts economic growth. The reality confirms Iraq's inability to achieve real and sustainable economic growth, as evidenced by the growth primarily observed in the oil sector rather than genuine economic growth. Despite the economic boom resulting from increased oil production and exports, this has not translated into improvements in infrastructure or the well-being of the community, which suffers from poverty and unemployment due to the decline in the productive sector. In other words, the lack of a real productive sector contributes to the low growth rate, and the achieved economic growth can be considered an economic bubble, placing the Iraqi economy in a fragile state (Burayhi, 2022, p. 2).

Table 3 illustrates the fluctuation of economic growth indicators in Iraq.

Indicators	2018	2019	2020	2021	2022
GDP at constant prices (trillion dinars)	199	211.8	188	202.5	503.08
GDP at current prices (trillion dinars)	251	262.9	198.8	301.4	1,006
Per capita income at current prices (million dinars)	6.6	6.72	4.95	7.3	7
Non-oil value added as a percentage of GDP	- 0.4	- 15.6	- 20.2	4.7	- 5.4
Growth rate of GDP at constant prices	- 1.0	4.4	- 15.7	2.8	7.2
Growth rate of GDP at current prices	11.2	3.2	- 28.5	37.2	27.8
Growth rate of per capita income at current prices	8.2%	0.5%	- 30.3	32.7	29

Sources:

1. Ministry of Planning, Directorate of National Accounts, Central Statistical Organization, Annual Economic Reports for the years 2018-2022.
2. Preliminary quarterly and annual estimates of the Gross Domestic Product for the year 2022.

Through the above table, we observe the fragility of economic growth due to its fluctuation and instability resulting from its vulnerability to internal and external shocks as a rentier economy dependent solely on the oil sector. We notice that the value added to the Gross Domestic Product (GDP) without oil over the past five years has been consistently negative, except for the year 2021, which achieved a value of (4.7). This positive growth can be attributed to the development and investment in transformative activities, transportation and logistics, wholesale and retail trade (Ministry of Planning, 2021, p.16). However, the unsustainable growth is a consequence of the underdevelopment, lack of enhancement, and inadequate investment in the latent human capital in a way that achieves stable and sustainable growth, fostering innovation and creativity, especially considering that Iraqi human capital still suffers from traditional and uncreative development that does not keep up with technological advancements.

The loss of both material and non-material returns at the individual and societal levels in

Iraq can have significant high values. A global review of over 60 years of estimates on education returns in 139 countries indicates that the average rate of individual returns, attributed to an additional year of education, is around 9% annually, which remains highly stable over several decades (Psacharopoulos, 2018). As for secondary education, the average rates of returns to education are 15.1% and 11.8% for individual and societal returns, respectively. This means that each additional year of schooling could lead to a 10% increase in an individual's share of the country's GDP (Psacharopoulos, 2018).

The demographic dynamics in Iraq result in an increase in the labor supply, which can be used to support economic growth if sufficient jobs are provided. Since productivity is the main driver of long-term growth aiming to bridge the income gap and converge with high-income economies, labor productivity in Iraq represents at least half the per capita GDP growth rate in most Organisation for Economic Co-operation and Development (OECD) countries (OECD, 2017). However, productivity levels in Iraq lag behind those of

its peer countries. Consequently, according to the World Bank's Human Capital Index, which measures the productivity of the next generation of workers in terms of complete education and full health, Iraq's index is much lower than expected for its income level (World Bank, n.d.).

Moreover, poverty rates in Iraq have increased to 31.7% in 2020 compared to 20% in 2018 (United Nations, 2022, p.9). Iraq's absence internationally and regionally from numerous rapidly advancing technological development indicators that primarily rely on human capital, such as the Global Talent Index, Global Competitiveness Index, and the World Intellectual Property Organization (WIPO) Global Innovation Index, is noteworthy. The Iraq Innovation Index has lost any innovative position among world countries (Global Innovation Index, 2021). Innovation in Iraq is not effectively employed for economic purposes or investment. Furthermore, innovators lack clear legal protection to preserve their rights and economic benefits over time. There is no entity that supports innovators and provides the necessary means for research and innovation development, as well as strengthening the relationship between universities, research centers, and commercial enterprises.

Fifthly: Reasons for the decline in the level of human capital in Iraq The reasons for the decline in the level of human capital in Iraq and its weakened productivity can be attributed to the following factors: Expenditure in social sectors has been insufficient and ineffective or inadequate, leading to a decline in the level of this wealth. This can be attributed to limited revenues for several reasons, including the lack of diversification in the Iraqi economy and a decrease in tax revenues (World Bank Group, 2021, p. 1). The expenditure on the health and education sectors can be characterized as follows:

A: First, expenditure on the health and education sectors in Iraq remains low and declining. Iraq allocates the lowest share of its general budget to these sectors compared to countries in the Middle East region and countries with higher middle-income levels. In 2020, only 4% of the general budget was allocated to the health sector (World Health Organization, 2021). Furthermore, public spending on the health sector has remained stagnant at 1.6% of the Gross Domestic Product (GDP) from 2017 to 2019, which is lower than the regional and higher middle-income country average of 3.3% of GDP (World Health Organization, 2023, p. 3).

B: Secondly, the weakness in expenditure is accompanied by inefficiency in allocation. Recent national health accounts data for 2018 reveals that 37% of the total health expenditure is allocated to hospitals, compared to only 16% for preventive care and 13% for primary care in outpatient facilities. This highlights a significant aspect of the inefficiency in resource allocation across different levels of care. Similarly, in the education sector, the per-student expenditure is much higher in higher education compared to pre-university education. In 2017, Iraq's expenditure per student in higher education was approximately 3.5 times higher than that in pre-university education, compared to figures ranging from 1.3 in the Middle East region and North Africa. Additionally, Iraq demonstrates relatively low technical efficiency in translating this expenditure into educational outcomes. When comparing the expenditure per student to low learning indicators in Iraq, the country falls significantly below the expected performance for the education sector. This partly stems from the high level of wage allocations, which have inflated at the expense of investment allocations and other essential revenues necessary for quality service provision.

C: Thirdly, wage allocations significantly dominate public expenditure in the health and education sectors. In 2019, these wage allocations accounted for 76% of the total government budget in the health sector and 93% in the education sector. Moreover, the increase in financial allocations in the health sector has been associated with a substantial rise in the hiring of administrative and non-specialized staff, accompanied by a decrease in allocations for medicines and equipment. Similarly, the investment budget in the education sector has suffered from resource shortages for an extended period. Given the destruction and deterioration of the education infrastructure resulting from years of conflict and violence, the need for increased public investment in education is a fundamental requirement for delivering effective educational services (World Bank Group, 2018, p. 4).

D: Fourthly, there is a lack of fairness in the significant increase in healthcare expenditure financed by Iraqi households from their own incomes. Due to the absence of a health insurance system or similar prepayment programs and the low proportion of state-funded healthcare expenditure, personal spending on healthcare services remains high. Government spending accounts for only 42%

of the total healthcare expenditure, which is the lowest level among comparable countries except for Egypt, resulting in weak financial coverage. Consequently, individuals bear a significant burden of healthcare expenditure from their personal resources, particularly in private sector healthcare services. Concerns arise regarding the equitable performance of the healthcare system (World Bank Group, 2018, p. 4).

2 Inadequate and inefficient spending in the education sector is a significant concern. Regarding education expenditure, which is considered the foundation of human capital development, the proportion of spending on education in both the Ministry of Education and the Ministry of Higher Education ranged from 4% to 8% of the country's gross domestic product. However, the Central Statistical Organization highlights a rise in the number of kindergartens in Iraq from 804 in the academic year 2014/2015 to 1244 in the academic year 2019/2020. Similarly, the number of primary schools increased from 10,779 to 17,945, and secondary schools increased from 4,953 to 8,612 within the same period. Meanwhile, the number of graduates in Iraq during the same period increased from 58,405 to 107,854. Consequently, the average number of students per school is 406, which is

disproportionate to the infrastructure capacity of most schools with 12 classrooms. Additionally, many schools share their facilities with one or more schools, which undermines the delivery of effective education due to time constraints for lessons. Despite international support and government allocations, indicators place the Iraqi education sector and its quality in a disadvantaged position. The UNESCO Global Education Monitoring Report of 2020, which assessed Iraq based on indicators such as the secondary education enrollment rate, tertiary education enrollment rate, human resources development index, and others, revealed that the education level in Iraq is significantly low. Similar findings were reported in another World Bank report. A UNESCO report published in 2021 also indicated that the literacy rate in Iraq is very low, estimated at around 77% for adults and approximately 63% for young people aged 15 to 24. World Bank statistics also show a very low school enrollment rate in Iraq. According to the Central Statistical Organization, the enrollment rate for eligible children in the primary stage is 90%, while it drops to 58% in the intermediate stage and further decreases to 32% in the preparatory stage. Multiple sources also indicate a high illiteracy rate in Iraq, as well as a high dropout rate, exacerbating the challenges that

need to be overcome to improve the quality of education in the country. All these factors contribute to Iraq's ranking of 137 out of 190 countries in the UNESCO Global Education Ranking for 2020, with a score of 0.543 in the education quality index, which is very low. In the United Nations Human Development Index for 2021, Iraq ranked 119th globally out of 189 countries concerning the education index. Despite the presence of more than 35 government universities and 45 private universities and colleges in Iraq, they are excluded from advanced university rankings. In the QS World University Rankings released in 2022, no Iraqi university was classified among the top 100 in the world. In the latest Webometrics ranking, published in January 2023, the University of Baghdad was ranked as the best university in Iraq, obtaining the 1779th position globally. It was followed by the University of Mosul at 2706th position and the University of Al-Nahrain at 2816th position, which are considered low rankings. In the Shanghai Ranking of World Universities in 2021, no Iraqi university was classified among the top 100 in the world (Shaghaydil, 2022).

3. there is a lack of general indicators for research and development activities and links between industry and other sciences. Public research is not utilized to increase

productivity and strengthen the country's competitive position. Iraq lacks advanced infrastructure to provide a suitable environment for the continuous development of research and development activities. One of the reasons for the limited number of researchers and developers is the lack of independent allocations for scientific research from the budgets and the private sector's lack of participation in supporting scientific research centers. Additionally, there is a lack of coordination between productive sectors and research centers. Research activities in universities are weak due to their focus on education rather than scientific research. In 1999, there were 2840 researchers, but after 2003, the number gradually decreased due to the security and economic conditions in Iraq. In 2007, the number reached 423 researchers per million people. By the end of 2014, after the deterioration of the security situation, the number decreased to 93 researchers per million people. This represents a significant economic loss for the Iraqi state as substantial funds and time were invested in these researchers without benefiting the country's development. Many of them now work in countries that provide them with better working and living conditions (Thajeel, 2018, pp. 11-12).

Advanced countries spend about 2.5% of their gross national income on research and

development, with approximately 80% of this expenditure coming from the private sector. However, the expenditure on research and development as a percentage of the Iraqi gross domestic product is low and sometimes not allocated at all. The private sector in Iraq has little impact on supporting this activity (United Nations, 2022, p. 9).

Only four out of five poor individuals are covered by social safety nets, leaving 20% of the poor population uncovered (United Nations, 2022, p. 9). As a result, they are highly vulnerable to suffering and susceptible to shocks. These gaps in human capital are likely to widen due to rapid global changes in technology, population characteristics, fragility situations, and climate. Conflicts, epidemics, and pandemics can have a devastating impact on human capital due to loss of life, loss of livelihoods, malnutrition, cessation of basic health and education services. These effects are likely to have a long-lasting impact on individuals' productivity. The social protection landscape in Iraq suffers from relative fragmentation and ineffectiveness in meeting the needs of the most vulnerable groups and preventing people from falling into poverty. The social security system consists of one system for public sector workers and another for private sector workers. The public sector fund provides comprehensive coverage for the

public sector workforce, but the benefit levels are considered generous and financially unsustainable. The private sector fund covers a low percentage of private sector workers and provides a limited range of benefits, with employers remaining responsible for maternity benefits, work-related injuries, and disability, and there is no unemployment benefit. In addition, social protection programs, represented by the distribution system and the social safety net that covers 1.2 million Iraqi families, face challenges in terms of targeting accuracy, and the coordination between them (and with the social security system) is weak (International Labour Organization, 2023, p.16).

4. Until now, Iraq lacks a specific employment strategy or plan, in addition to the inefficiency in utilizing human capital due to low levels of job creation and skills mismatch. The Iraqi economy has focused on non-productive service sectors, such as real estate and banking, which do not generate employment opportunities. Furthermore, the private sector's inability to create decent employment opportunities is attributed to a poor business environment, weak financial system, limited support services, and lack of diversification and competition in the economy. This results in a disparity in employment between the public and private

sectors, which represent 38% and 62% of the workforce, respectively (International Labour Organization, 2022, p. 10).

5. The weak infrastructure and the lack of conducive conditions have hindered the development of these valuable human resources in Iraq and led to the emigration of skilled individuals abroad, causing the country to lose the developmental role of these important talents. Between 2005 and 2009, an average of 240,000 Iraqis emigrated annually, totaling 2.1 million over the five-year period (Booth, 2023, p. 3). Additionally, limited institutional capacities and resources contribute to inequality and the disconnect between education, vocational training, and labor market requirements, making Iraq lag behind in terms of innovation and creativity compared to the regional context.

6. The education system in Iraq has not kept pace with technological advancements that foster and support talent, innovation, and competitiveness. Iraq still relies on traditional methods and has not developed human intellect or embraced creative and innovative capacities.

Solutions for the development and investment in Iraqi human capital: To overcome these weaknesses and develop human capital, change can only be achieved through the following measures (World Bank, 2021):

1. Implement a comprehensive reform program that addresses the shortcomings in the education sector and encourages a renewed focus on learning.
2. Enable the public sector to play a greater role in improving the business environment in Iraq.
3. Establish a strategic partnership with the World Bank Group that aligns with the priorities of the Iraqi government outlined in its programs and national strategies. The partnership framework should aim to improve governance, provide public services, and increase private sector participation in economic activities.
4. Enhance the social contract between citizens and the state, along with strengthening a sound local private sector that helps create employment opportunities and more prospects for Iraqi youth, while also enhancing the legitimacy and capacity development of key government institutions.
5. Encourage employment of individuals in strategic sectors in neighboring countries, thereby exporting the workforce and providing training for work in specific sectors abroad. This should be part of a comprehensive human capital strategy for the future.

6. Building and nurturing human capital requires significant investments, which necessitate new and effective strategies and methods for revenue mobilization. The current investment gaps are unlikely to be filled by financial resources alone, especially considering the multiple concurrent priorities and financial pressures faced by the government.

7. Financial deepening is crucial for human capital development. A sound, efficient, comprehensive, and deep financial sector can play two key roles in the human capital agenda. Firstly, it can act as a catalyst to help build human capital by mitigating unexpected shocks that may prevent people from meeting healthcare and education needs. Payment services can facilitate access to healthcare and education services. The growth of digital financial services presents an important opportunity to reach more households at lower costs. A sound financial sector capable of mobilizing long-term capital efficiently and facilitating technology adoption can stimulate investment in education and increase returns on human capital. It can also help enhance human capital gains by facilitating access to higher education through student financing and other forms

of lending. While excessive financing can lead to misallocation of talents and resources, reducing their marginal contributions to productivity and economic growth, it is undeniable that financial development can amplify the gains.

8 Investing in providing essential services while enhancing social safety nets to protect against shocks and facilitate reforms, increasing focus on primary healthcare and preparedness for pandemics and epidemics, addressing nutrition deficiencies, and working on early childhood development, education, and basic services across all sectors, using technology and improving governance.

9. Establishing a separate budget for the education and health sectors that is independent of the general budget, lasting for a minimum of ten years and dedicated solely to investment and research aspects that foster creativity and innovation (Ali, 2020, p. 213).

CONCLUSIONS:

1. Human capital is considered a fundamental asset on which development relies in all its forms. It is an important productive factor and a wealth of nations. This explains the emphasis placed on it in various strategies and development plans

adopted by many countries and international organizations.

2. Iraq is facing a real crisis due to the underdevelopment and underinvestment in its human capital, which has placed it outside the benchmarks of progress in the region. It squanders 60% of its productive capacity represented by its human capital.

3. The decrease in government spending on education and healthcare, coupled with the structure of government expenditure favoring current expenditure over investment expenditure, has contributed to the weak development of human resources.

4. Iraq possesses a demographic opportunity that it has been unable to harness in a way that achieves sustainable and stable growth.

5. The per capita share of the gross domestic product (GDP) has witnessed fluctuations, in addition to negative values of value-added to GDP excluding the oil sector, highlighting the mono-dimensional rent-based nature of the economy and the fragility of economic growth in Iraq.

6. Education in Iraq does not meet market demand and cannot create a human capacity capable of creativity and innovation due to neglecting vocational education and training, which has hindered

the creation of genuine economic growth through education.

7. There is a lack of genuine interest in research and development centers and a lack of competent youth capable of achieving the progress that keeps pace with current technology.

RECOMMENDATIONS:

1. Create alignment between the outcomes of education and the requirements of the labor market, enabling the workforce to effectively contribute to developing the productive base and, consequently, raising the rates of economic growth.

2. Give utmost importance to training, whether within the country or abroad, as it is a significant determinant in the aggregate production function. Also, prioritize research and development centers and ensure their complete independence from political interventions.

3. Work on improving the indicators of human capital set by the World Bank to enhance and increase the productivity of the workforce, leading to sustainable long-term economic growth.

4. Undertake a radical reform of the educational system, enabling it to keep pace with global developments. Focus on

quality at all educational levels, emphasizing qualitative aspects.

5. Shift the focus towards intellectual capital and consider it as an important strategy. Emphasize the knowledge economy or the digital economy as a goal to be achieved, which leads to increased motivation to acquire knowledge, raise the level of creativity and innovation, and recognize the importance of scientific research in Iraqi universities as it represents the advanced link in advancing higher education.

6. Focus on the development and transfer of advanced technology from abroad and utilize it in developing the scientific infrastructure for information technology and research institutions.

7. Adopt a sound fiscal policy that works on increasing the efficiency of government healthcare spending and maximizing the health returns by addressing waste in financial and healthcare resources. Diversify funding sources to increase the healthcare supply to meet the growing healthcare demand,

ensuring a conscious and healthy society that possesses a recovering workforce contributing to increased production, productivity, and supporting the development process.

8. Enhance coherence between social security and social assistance to achieve social protection floors, providing social welfare and establishing links between social security and effective labor market policies to promote decent work.

9. Enhance the capacity of the Ministry of Labor and Social Affairs to effectively provide social security by supporting institutional processes, information technology infrastructure, human resources, and internal operating standards.

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