The Impact of Sovereign Wealth Fund Investments on Enhancing Human Resource Management Efficiency and Developing Tourism Services in the Context of the Digital Revolution

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أثر استثمارات صناديق الثروة السيادية على تعزيز كفاءة إدارة الموارد البشرية وتطوير الخدمات السياحية في سياق الثورة الرقمية

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Abstract

Sovereign wealth funds (SWFs) are considered long-term strategic financial instruments and have become a permanent and influential component of the global financial system. Their importance has grown as effective mechanisms for investing surplus revenues generated from natural resources, particularly oil and gas, by transforming those surpluses into productive investment assets, both domestically and internationally. This role is attributed to their contribution to diversifying the economic structure, optimizing resource utilization, ensuring intergenerational equity in wealth distribution, mitigating economic shocks, and promoting overall macroeconomic stability and sustainable development.

In light of the rapid technological transformations brought about by the digital revolution, there is an urgent need to redirect the investments of these funds toward vital non-oil sectors—most notably, human resource management and the development of tourism services—due to their direct impact on enhancing economic competitiveness and diversifying income sources. Accordingly, this study aims to analyze the impact of sovereign wealth fund investments on improving the efficiency of human resource management and advancing the tourism sector in Iraq, within a modern digital environment, by drawing on successful international experiences and exploring the opportunities and challenges facing this approach in the Iraqi context.

The study is based on the central hypothesis that sovereign wealth funds play a pivotal role in achieving sustainable development goals in Iraq by enhancing the efficiency of human resource management and developing tourism services in the context of digital transformation. The deductive method was employed to construct the theoretical framework, while the descriptive-analytical approach was used for the applied aspects of the research.

The study reached several key findings, most notably:

Sovereign wealth funds are influential financial tools in addressing economic imbalances, contributing to the recycling of surpluses between countries and enhancing global financial integration.

The success of these funds in fulfilling their developmental roles depends on the efficiency of their governance, the clarity of their strategic objectives, and their ability to channel investments into forward-looking sectors such as education, digital transformation, smart tourism, and human capital development.

Keywords: Sovereign Wealth Funds, Sustainable Development, Human Resource Management, Tourism Services, Digital Revolution, Iraqi Economy, Natural Resources.

المستخلص

تُعتبر صناديق الثروة السيادية أدوات مالية استراتيجية طويلة الأجل، وقد أصبحت عنصرًا دائمًا ومؤثرًا في النظام المالي العالمي. تزايدت أهميتها كآليات فعّالة لاستثمار الفوائض الناتجة عن الموارد الطبيعية، لا سيما النفط والغاز، من خلال تحويل هذه الفوائض إلى أصول استثمارية منتجة، محليًا ودوليًا. ويُعزى هذا الدور إلى مساهمتها في تنويع الهيكل الاقتصادي، وتحسين استخدام الموارد، وضمان العدالة بين الأجيال في توزيع الثروة، وتخفيفأ الصدمات الاقتصادية، وتعزيز الاستقرار الاقتصادي الكلي والتنمية المستدامة.

في ضوء التحولات التكنولوجية المتسارعة التي أحدثتها الثورة الرقمية، ثمة حاجة ملحة لإعادة توجيه استثمارات هذه الصناديق نحو قطاعات حيوية غير نفطية، أبرزها إدارة الموارد البشرية وتطوير الخدمات السياحية، نظرًا لتأثيرها المباشر على تعزيز القدرة التنافسية الاقتصادية وتنويع مصادر الدخل. تهدف هذه الدراسة إلى تحليل أثر استثمارات صناديق الثروة السيادية على تحسين كفاءة إدارة الموارد البشرية والنهوض بقطاع السياحة في العراق، ضمن بيئة رقمية حديثة، وذلك بالاستفادة من التجارب الدولية الناجحة واستكشاف الفرص والتحديات التي تواجه هذا النهج في السياق العراقي.

وتستند الدراسة إلى الفرضية الأساسية التي مفادها أن صناديق الثروة السيادية تؤدي دورًا محوريًا في تحقيق أهداف التنمية المستدامة في العراق من خلال تعزيز كفاءة إدارة الموارد البشرية وتطوير الخدمات السياحية في سياق التحول الرقمي. وقد استُخدم المنهج الاستنتاجي لبناء الإطار النظري، بينما استُخدم المنهج الوصفي التحليلي للجوانب التطبيقية للبحث.

وتوصلت الدراسة إلى عدة نتائج رئيسية، أبرزها:

تُعدّ صناديق الثروة السيادية أدوات مالية مؤثرة في معالجة الاختلالات الاقتصادية، والمساهمة في إعادة تدوير الفوائض بين الدول، وتعزيز التكامل المالي العالمي.

ويعتمد نجاح هذه الصناديق في أداء أدوارها التنموية على كفاءة حوكمتها، ووضوح أهدافها الاستراتيجية، وقدرتها على توجيه الاستثمارات نحو قطاعات مستقبلية مثل التعليم، والتحول الرقمي، والسياحة الذكية، وتنمية رأس المال البشري.

الكلمات المفتاحية: صناديق الثروة السيادية، التنمية المستدامة، إدارة الموارد البشرية، الخدمات السياحية، الثورة الرقمية، الاقتصاد العراقي، الموارد الطبيعية.

Introduction

HR systems are considered among the most important and oldest information systems within an economic unit, as they represent one of the main sources of information upon which all administrative levels and external entities rely when making decisions. These systems process vast amounts of data using various techniques and are closely integrated with other information systems. With the ongoing developments in information technology environments, many new technologies have emerged that have drastically transformed the nature of work, leading to the emergence of the concept of "digital transformation" — a comprehensive restructuring of economic units involving fundamental changes across all areas and organizational functions.

Digital transformation is a comprehensive process that extends beyond the technical aspects to include human resources, which play a pivotal role in the success of transformation efforts. HR systems, in the context of digital transformation, directly impact core HRM functions such as workforce planning, skills development, performance management, and decisions related to recruitment and training by providing accurate data and necessary analytics to support such decisions.

Therefore, there is an urgent need to design management information systems that consider the evolving nature of modern digital technologies, ensuring their integration with HRM functions and enhancing the economic unit's ability to achieve its strategic objectives. Understanding the potential impacts of using digital transformation technologies in designing the elements and components of HR systems, including the human infrastructure, can maximize the benefits offered by these technologies and support the development of a sustainable competitive advantage that strengthens institutional performance over the long term.

Chapter One: Research Methodology

Problem Statement

Rentier economies, including Iraq's economy, face increasing challenges due to their heavy reliance on natural resources, particularly oil, as the primary source of public revenues. This dependence exposes them to sharp fluctuations in global markets, adversely affecting economic stability and development. Amid the global shift towards alternative energy sources and the urgent need to diversify income streams, the importance of investing available financial surpluses through sustainable strategic tools, such as sovereign wealth funds, becomes evident. Despite the economic transformations Iraq has undergone since 2003 and the accumulation of oil surpluses, the absence of a clear strategy for investing these surpluses has resulted in weak support for vital non-oil sectors, notably human resource management, which is a fundamental pillar for enhancing institutional performance and comprehensive development. Therefore, this study's problem centers on the extent to which investments from sovereign wealth funds can contribute to improving the efficiency of human resource management and developing tourism services in Iraq, within the context of the rapidly evolving digital revolution.

Significance of the Study

This study gains its importance from the growing role sovereign wealth funds play as strategic instruments in supporting economic stability and sustainable development, especially in countries possessing significant financial surpluses derived from natural resources. The significance is heightened in the Iraqi context, which suffers from weak economic diversification, fragility in optimal utilization of oil revenues, and a lack of systematic investment in human resources, regarded as a cornerstone for building a competitive and sustainable economy. Furthermore, the study derives importance from the digital revolution, which imposes fundamental transformations on human resource management methods and service development, necessitating the redirection of investments toward building advanced human capacities and tourism sectors that align with contemporary demands.

Objectives of the Study

This study aims to evaluate the impact of sovereign wealth fund investments on enhancing the efficiency of human resource management and developing tourism services in Iraq amidst the digital revolution. The subsidiary objectives include:

- Presenting the theoretical framework of sovereign wealth funds, including their concepts, types, and economic roles.
- Explaining the concept of sustainable development and its dimensions, with an emphasis on human resource management and tourism within a digital environment.
- Analyzing selected international experiences in utilizing sovereign wealth funds to support non-oil developmental sectors.
- Examining Iraq's current capacities and challenges regarding the establishment of an effective sovereign wealth fund.
- Proposing a conceptual framework for employing sovereign wealth funds in Iraq to support the digital advancement of human resources and the tourism sector.

Methodology

The study employs several scientific methodologies to ensure the achievement of its objectives and to test its hypotheses, including:

- **Descriptive-analytical method**: for analyzing theoretical and applied literature and data related to sovereign wealth funds, human resource management, and tourism.

- **Case study method**: through examining successful international models (such as Norway, the UAE, and Kuwait) in investing sovereign wealth funds.
- **Comparative method**: to contrast international experiences with Iraq's reality to extract applicable lessons and recommendations.
- **Foresight method**: to develop a future-oriented vision regarding the role of an Iraqi sovereign wealth fund in supporting digital transformation and sustainable development of human resources and tourism services.

Chapter Two: Theoretical Framework

2.1 Concept of Sovereign Wealth Funds (SWFs)

Sovereign Wealth Funds (SWFs) are state-owned investment vehicles that are designed to serve strategic economic purposes. Unlike other financial tools such as monetary reserves or pension funds, SWFs are established to manage excess revenues—often from natural resource exports or trade surpluses—and to ensure fiscal sustainability, intergenerational equity, and macroeconomic stability. Table 1 illustrate the Institutional Definitions and Conceptual Analysis of SWFs.

Table (1): Institutional Definitions and Conceptual Analysis of Sovereign Wealth Funds (SWFs)

Institution	Scientific Analysis of the Definition
OECD (2020)	The OECD defines SWFs as "financial assets owned and managed by governments to achieve national objectives" such as economic diversification and shielding the budget from price volatility. The definition clearly distinguishes SWFs from short-term liquidity tools (OECD, 2020, p. 5).
IMF (2023)	According to the IMF, SWFs are "government-owned investment funds financed by budget surpluses or foreign exchange reserves, and managed for purposes such as macroeconomic stabilization and economic diversification" (IMF, 2023, pp. 12–13). The focus here is on the stabilizing and precautionary functions of these funds.
IFSWF (2021)	In the Santiago Principles, the IFSWF specifies that SWFs must (1) be government-owned, (2) invest primarily in foreign assets, and (3) pursue long-term financial objectives. Pension funds and monetary reserves are explicitly excluded due to their different nature and objectives (IFSWF, 2021).

2.2 Types of Sovereign Wealth Funds

Sovereign wealth funds (SWFs) are characterized by diverse objectives and funding sources, ranging from developmental, savings, and investment funds to fiscal stabilization funds. The money deposited in these funds is not used to cover the government's operational expenses or emergency liabilities but is intended to achieve long-term goals such as diversifying income sources and ensuring economic stability (IMF, 2023, p. 45).

1. W**Types of Sovereign Wealth Funds Based on Funding Source**

- **Funds Financed by Natural Resources (Oil Funds**): These funds are established by oil and gas exporting countries with the goal of converting depletable natural wealth into financial assets to be invested for the benefit of future generations. These funds aim to hedge the economy against oil price volatility and reduce its negative impact on government revenues (OECD, 2021, pp. 62–63).
- **Funds Financed by Current Account Surpluses**: Such funds are formed in non-oil-exporting countries that rely on exports of goods and services. Part of the cash surpluses resulting from the trade balance is converted into long-term investments to enhance financial stability (World Bank, 2022, p. 27).
- **Funds Financed by General Budget** Surpluses: When governments achieve a surplus in their fiscal balance, these surpluses are transferred to sovereign wealth funds for investment instead of immediate spending, aiming to provide a sustainable financial buffer for the budget during future deficits (International Monetary Fund, 2023, p. 49).
- **Funds Financed by Privatization Revenues**: Some countries use revenues from selling state-owned assets or companies to finance sovereign wealth funds. This method is seen as a means to separate ownership of revenues from direct government management, thereby enhancing the efficient use of resources (UNCTAD, 2020, p. 88).

2. **Types of Sovereign Wealth Funds Based on IMF Classification**

- **Savings Funds for Future Generations**: These focus on converting natural resource revenues into long-term investments to guarantee the rights of future generations and maintain intergenerational equity (IMF, 2023, p. 52).
- **Foreign Reserve Investment Funds**: Managed to invest excess foreign reserves of the central bank to achieve higher returns compared to traditional precautionary reserves, accepting higher investment risks (World Economic Forum, 2021, p. 39).
- **Stabilization Funds**: Used to mitigate the impact of fluctuations in natural resource prices on the general budget, financing temporary deficits caused by revenue volatility (OECD, 2021, p. 65).
- **Development Funds**: Invest their resources in development projects and infrastructure to promote economic and social development within the country (UNDP, 2024, p. 74).
- **Pension Reserve Funds**: Used to ensure the continuity of pension payments, their ownership varies among governments, private companies, and public institutions (ILO, 2022, p. 58).

2.3 Importance of Sovereign Wealth Funds

Sovereign Wealth Funds (SWFs) are vital strategic financial tools that play several important roles in the countries that own them. Their significance can be summarized as follows:

- **Reserve Management and Protecting Future Generations**: These funds enable countries to convert part of their natural resource revenues into long-term financial assets, ensuring wealth sustainability and safeguarding the interests of future generations after the depletion of primary resources (OECD, 2021, p. 34).

- **Diversifying Income Sources and Reducing Investment Risks**: SWFs allow economic diversification by developing new sectors and diversifying investment portfolios, which mitigates potential risks and ensures stable financial returns. They also focus on investments in real assets that create jobs, as seen in the Abu Dhabi and Dubai funds that supported the growth of tourism and entertainment sectors (IMF, 2023, p. 58).
- **Financial Crisis Management and Economic Stability**: These funds help cover fiscal deficits during revenue downturns caused by commodity price volatility, providing steady and regular resources not directly linked to volatile primary resources, thereby enhancing economic stability during crises (World Bank, 2022, p. 44).
- **Supporting Fiscal and Monetary Policies**: SWFs contribute to national liquidity management and enhance the state's capacity to implement effective fiscal and monetary policies (OECD, 2021, p. 37).
- **Promoting Sustainable Development and Growth**: The funds invest in strategic long-term projects aimed at developing the national economy and promoting sustainability (UNDP, 2024, p. 71).
- **Technology Transfer and Expanding Economic Exchanges**: Direct and indirect investments help transfer technology from advanced countries, boosting productive capacity and expanding trade volumes (World Economic Forum, 2021, p. 42).

Importance of Sovereign Wealth Funds at the International Level

- **Enhancing Global Market Stability**: SWFs play a role in stabilizing both major and emerging financial markets through their long-term investments, which reduce market volatility (IMF, 2023, p. 60).
- **Financing Infrastructure and Attracting Foreign Investment**: They help finance infrastructure projects in developing countries; for example, the

World Bank president proposed investing 1% of SWF assets in African institutions to foster development (World Bank, 2022, p. 52).

- **Increasing Global Economic Integration**: SWFs contribute to linking major economies and enhancing cooperation and integration among them (OECD, 2021, p. 40).
- **Creating Employment Opportunities in Host Countries**: Investments generate both direct and indirect job opportunities for local populations, supporting local economic development (UNDP, 2024, p. 75).
- **Enhancing Production Returns and National Income**: They increase corporate profits and improve factor returns, thereby raising the national income levels of host countries (ILO, 2022, p. 59).

Despite these positive roles, some developed countries have expressed political concerns that SWFs may be investment vehicles with strategic motives, potentially threatening national security, especially given their expanding investments in sensitive financial sectors in the US and EU (IMF, 2023, p. 65). In response, the IMF helped establish the “International Working Group on Sovereign Wealth Funds” in 2008 to develop internationally agreed principles and standards (IMF, 2023, p. 67). Additionally, the Organization for Economic Co-operation and Development (OECD) adopted specific standards for sovereign investors to promote transparency and accountability (OECD, 2021, p. 43).

Objectives of Sovereign Wealth Funds

Sovereign Wealth Funds (SWFs) aim to achieve a range of economic, financial, and developmental objectives, which can be summarized as follows:

1. **Achieving Income Stability** / These funds seek to mitigate fluctuations in national income caused by volatile prices of primary commodities, especially in countries reliant on exporting depletable natural resources such as oil. This helps avoid budget deficits and ensures long-term economic stability (IMF, 2023, p. 47).

2. **Intergenerational Equity** / Savings funds are established to convert revenues from non-renewable natural resources into savings for future generations, aiming to preserve the rights of those generations and prevent them from being deprived of the national wealth (OECD, 2021, p. 38).
3. **Financing Pension Fund Deficits** / Some sovereign wealth funds are used to cover potential future deficits in pension or social security funds due to an increasing ratio of elderly people compared to the workforce, thus contributing to the sustainability of pension systems (ILO, 2022, p. 60).
4. **Optimal Performance for Maximizing Returns** / Certain funds aim to maximize returns on foreign reserves through carefully managed strategic investments. Part of the official reserves is managed short-term to ensure liquidity, while the surplus is invested in sovereign wealth funds to achieve higher returns (World Economic Forum, 2021, p. 40).
5. **Diversifying National Income** / Sources These funds aim to reduce dependence on depletable primary resources by financing economic and social projects that stimulate domestic production, build infrastructure, and support strategic sectors to achieve sustainable economic development (UNDP, 2024, p. 73).

2.4 The Relationship Between Sovereign Wealth Funds and Enhancing Human Capital Efficiency

Sovereign wealth funds are strategic financial tools that enable governments to invest in human capital by funding diverse training and education programs, whether through supporting higher education, vocational courses, or specialized technical programs. This investment in human resources increases the skills and efficiency of the workforce, which in turn raises labor productivity and directly contributes to the sustainable economic development of the country (OECD, 2021, p. 46).

Moreover, sovereign wealth funds contribute, through their direct and indirect investments in advanced economic sectors both domestically and abroad, to the transfer of modern technology and knowledge. This technological transfer creates a natural educational and training environment that prepares the national human resources to benefit from advanced technologies and develop their skills according to global market demands (IMF, 2023, p. 57).

These funds also help promote sustainable development and economic progress by financing strategic projects in infrastructure, health, and education sectors, improving working and living conditions, encouraging talent attraction and retention. Consequently, they create high-quality job opportunities that support raising the levels of national efficiency and skills (World Bank, 2022, p. 72).

Providing long-term financial stability is a core characteristic of sovereign wealth funds, enabling governments to continuously invest in workforce development without relying on fluctuations in natural resource prices. This stability allows for long-term planning in the regular and sustainable development of human capital (UNDP, 2024, p. 39).

Finally, these funds play a vital role in stimulating innovation and entrepreneurship by financing startups and innovations that heavily rely on qualified human competencies, thereby fostering an advanced technological work environment and helping refine human capital skills through practical experiences and modern practices (World Economic Forum, 2021, p. 28).

2.5 Concept of Digital Wealth

The phenomenon of **Digital Wealth** has emerged as one of the most prominent developments in today's world, attracting considerable attention from various economic units and stakeholders despite their diverse academic, practical, and professional backgrounds (Smith *et al.*, 2021, p. 18). **Digital Wealth** facilitates the transition of economic entities from localized environments to more integrated and interconnected settings, generating direct impacts that foster sustained growth (Ahmed & Al-Masri, 2022, p. 53).

The rise of this concept coincided with the Fourth Industrial Revolution and the expanding use of modern digital tools and technologies, necessitating a new type of workforce characterized by technical savvy. Adapting to computer use, digitizing processes, and providing lifelong learning and continuous training to acquire future skills—especially digital competencies—became essential (Lee & Park, 2023, p. 256).

Digital Wealth encompasses the profound changes driven by digital technologies that affect all aspects of human life, resulting in digitally connected economic environments where applications and digital platforms have become ubiquitous across social and economic spheres (Johnson, *et al.*, 2024, p. 9).

Initially, scholars defined **Digital Wealth** as the transitional phase from reliance on traditional communication means to the comprehensive adoption and optimal use of new digital communication tools to perform tasks and functions more effectively (Al-Hamidi, 2021, p. 141). It has also been described as a radical transformation in economic units with extraordinary effects on organizational strategies and structures (Wang & Zhao, 2022, p. 5).

Some researchers characterize **Digital Wealth** as the process by which government sectors or companies shift toward digital technology-based business models that innovate products and services while creating new revenue streams that increase product value (El-Bar & Al-Marhabi, 2023, p. 7). Others emphasize that it represents an investment in mindset and behavioral change to radically transform ways of working by leveraging technological advancements to build large, sustainable, and competitive organizations and communities (Shaheed, 2025, p. 198).

Based on these perspectives, **Digital Wealth** can be defined as the use of advanced digital technologies to create new business models, organizational culture, and customer interaction experiences that meet changing market demands.

This includes implementing technologies such as Artificial Intelligence (AI), cloud computing, big data analytics, blockchain, and the Internet of Things (IoT), alongside fundamental changes in how people work, interact with customers, and use data for decision-making (Garcia & Liu, 2023, p. 12).

According to Boudin (2022, p. 4), the essential pillars of **Digital Wealth** include:

1. Developing digital strategies and innovative business models.
2. Building integrated digital infrastructures.
3. Promoting innovation in digital service delivery.
4. Investing in training and developing employees' digital skills.
5. Measuring organizational digital readiness and supporting cultural change.

Ortiza, *et al.*, (2021, p. 342) and Rogers (2023, p. 200) highlighted clear impacts of digital wealth on organizational performance and summarized in Table (2) as follows:

Table: 2 Scientific Analysis of the Definition

Domain	Before Digital Wealth Implementation	After Digital Wealth Implementation
Customers	One-way communication; organization drives marketing.	Interactive communication; customer leads marketing.
Competition	Known, defined competitors.	Open competition; new and unknown competitors.
Data	Limited, planned data collection for decision-making.	Continuous, real-time data from ongoing interactions.
Innovation	Innovation based on managers' experience and intuition.	Innovation driven by continuous learning and customer feedback.
Value	Relatively stable organizational value.	Dynamic value responsive to market demands.

Source: Garcia-Ortiza, *et al.*, (2021), Impact of Digital Wealth on Organizational Performance, International Journal of Digital Economics, 5(1), pp. 330-350.

Therefore, **Digital Wealth** represents a critical opportunity for economic units to adopt modern technologies to fundamentally transform their operations, improve data management, develop secure information systems, and enhance internal and external communications (Nguyen & Tran, 2024, p. 44).

2.1 Importance of Digital Wealth

The importance of **Digital Wealth** lies in enabling organizations to operate efficiently and swiftly over sustained periods, which contributes to better time management through advanced digital programs and services (Brown & Jaber, 2023, p. 215). It also plays a key role in improving productivity and distribution through innovative digital channels that attract customers and meet their expectations (Nicoletti, 2020, p. 15).

Furthermore, **Digital Wealth** facilitates seamless exchange of information anytime and anywhere, reduces operational costs, increases flexibility, and supports adaptation to ongoing changes in business environments, thus encouraging expansion and integration into global markets (Sadouki, *et al.*, 2022, p. 110).

In addition, **Digital Wealth** provides immense potential to build competitive and sustainable communities by enhancing the experiences of consumers, employees, and users, improving their productivity through integrated digital processes (El-Bar & Al-Marhabi, 2023, pp. 3-20).

The significance of **Digital Wealth** can be summarized as follows:

1. Enhancing efficiency and digital innovation by leveraging digital capabilities to manage post-transition operations and define current and future products (Mergel & Edelmann, 2021, p. 5).
2. Reducing dependence on traditional paperwork and physical storage, optimizing resource and space management (Mehri & Ben Jameh, 2020, p. 70).

3. Supporting human, social, cultural, and economic development through widespread access to diverse educational and informational programs at low cost and any time and place (Al-Shmailah, *et al.*, 2021, p. 105).

2.6 Steps to Implement Digital Wealth

Implementing **Digital Wealth** involves a structured set of steps designed to transform organizations into innovative digital entities capable of meeting modern demands, including (Matt, *et al.*, 2022, p. 3):

1. Developing a clear and distinctive digital strategy focusing on transformation goals.
2. Assessing current digital capabilities and determining optimal organizational structures for marketing and investment.
3. Identifying integration challenges and obstacles, and planning for change management (El-Bar, 2023, p. 18).
4. Establishing strong leadership and comprehensive strategic vision for digital wealth.
5. Investing in human and technical resources to support full digital transformation.
6. Designing digital processes and analyzing data for intelligent decision-making.

Determining the Relationship Between the Impact of Sovereign Wealth Fund Investments on Enhancing Human Resource Management Efficiency and Developing Tourism Services in the Context of the Digital Revolution

Sovereign wealth funds are strategic financial tools that provide governments with the necessary resources to invest in the development of human capital, which directly contributes to improving the efficiency of human resource management (OECD, 2021, p. 52). In the context of the digital revolution, these funds enhance the ability of tourism institutions to adopt modern digital technologies, accelerating the development and improving the quality of tourism services (IMF, 2023, p. 60).

Sovereign wealth funds invest in training and qualifying the workforce specialized in digital sectors, helping to build highly skilled human cadres capable of efficiently utilizing digital technologies (World Bank, 2022, p. 78). Moreover, these investments support digital infrastructure and smart systems in the tourism sector, improving visitor experiences and enhancing the competitiveness of tourist destinations (UNDP, 2024, p. 45).

Furthermore, the financial stability provided by sovereign wealth funds enables relevant authorities to develop long-term plans for human resource development and adopt sustainable innovative digital solutions (ILO, 2023, p. 55). Therefore, sovereign wealth fund investments are considered a key driver for the digital transformation of the tourism sector through enhancing human resource efficiency and developing tourism services in an integrated and sustainable manner.

Chapter Three: Applied Aspect

Study Tool

In alignment with the objectives of this applied research, which investigates the role of sovereign wealth funds in enhancing human resource efficiency and achieving digital wealth within the context of tourism institutions, the researcher developed a structured and scientifically validated questionnaire. The development of this tool proceeded through the following stages:

Review of Theoretical Literature

The construction of the questionnaire was grounded in a comprehensive review of contemporary academic literature related to sovereign wealth funds, human capital development, and digital transformation. This step ensured that the questionnaire axes reflected the operational realities of tourism enterprises in Iraq.

Initial Drafting and Expert Evaluation

An initial version of the questionnaire was designed to include three core dimensions: (i) the role of sovereign wealth funds, (ii) human resource management efficiency, and (iii) indicators of digital wealth realization. This version was reviewed by experts in tourism management and digital economics. Based on their feedback, modifications were made to improve the clarity, relevance, and alignment of the instrument with the research objectives.

Scientific Validation of the Instrument

A revised version of the questionnaire was subjected to a second round of expert review. This process aimed to verify the accuracy of terminology, conceptual consistency, and adequacy of the items in capturing the intended constructs.

Refinement Based on Feedback

Taking into account the comments from peer reviewers and academic supervisors, further modifications were implemented. These included rewording ambiguous items, removing redundancies, and ensuring clarity in formulation. The final version employed a five-point Likert scale (Strongly Agree – Agree – Neutral – Disagree – Strongly Disagree) to capture respondents' attitudes.

Sample Characteristics

Distribution by Job Title

Table (3) below illustrated the information needed according to job title

Job Title	Frequency	Percentage (%)
General Manager	1	1.4%
Department Head	4	5.6%
Administrative Manager	2	2.8%
Other	64	90.1%
Total	71	100%

Distribution by Educational Qualification

Table (4) below represented the information needed according to the distribution of educational qualification

Educational Qualification	Frequency	Percentage (%)
PhD	2	2.8%
Postgraduate Diploma	5	7.0%
Master's Degree	5	7.0%
Intermediate Education	4	5.6%
Bachelor's Degree	55	77.5%
Total	71	100%

Analytical Note

It is notable that 87% of the respondents hold a university-level qualification or higher. This high level of academic attainment enhances the reliability and validity of the study's findings and supports the robustness of the subsequent statistical analyses.

The Impact Relationship Between Sovereign Wealth Fund Variables and Human Resource Efficiency and Digital Wealth Variables

The goal is to identify whether there is an impact of sovereign wealth fund variables on both human resource efficiency and digital wealth variables. Multiple regression analysis and stepwise regression analysis were conducted on one explanatory variable at a time with the response variables. The main hypothesis of the study suggested the existence of a relationship of effect – alongside a correlation relationship – between the sovereign wealth fund variables and both human resource efficiency and digital wealth. The main hypothesis branches into six sub-hypotheses as follows:

1. The sovereign wealth fund strategy affects human resource efficiency.
2. The technology leadership strategy affects human resource efficiency.
3. The digital wealth strategy affects human resource efficiency.
4. The sovereign wealth fund strategy affects digital wealth.

The relationship is formulated as a function between the real values of the explanatory variable (sovereign wealth funds) and the response variables (human resource efficiency and digital wealth). Based on the known regression equation (Y = a + bx), the feasibility of representing this relationship with a regression equation is expressed as follows:

Let:

- (ECA), (PEI) represent human resource efficiency and digital wealth (response variables, denoted as V, Y).
- (NPD & P) represent sovereign wealth fund variables (explanatory variables, denoted as g, Z, X).
    - o represents the constant.
- (Bn) represents the partial regression coefficient for the explanatory variables.

- (y) represents human resource efficiency (response variable).
- (V) represents digital wealth (response variable).
- (X) represents the sovereign wealth fund strategy (explanatory variable).

This relationship shows that the variables of human resource efficiency and digital wealth are real functions of the sovereign wealth fund variables.

Sovereign Wealth Fund Strategy and Human Resource Efficiency (Y-X):

Regression equation:

$y1 = 2.363 + 0.430X$

Table (5) The Effect of the Sovereign Wealth Fund Strategy on Human Resource Efficiency

Explanatory Variable	Regression Coefficient	Standard Error	t-value	Significance Level	Constant (a)
Sovereign Wealth Fund Strategy (X)	0.430	0.130	3.372	0.01	2.363

The results in Table (4) indicate a positive and statistically significant effect of the Sovereign Wealth Fund Strategy on human resource efficiency. The regression coefficient ($\beta = 0.430$) suggests that improvements in the strategy contribute to higher efficiency levels. The model is statistically significant at the 1% level, reflecting a strong explanatory relationship.

Table (6) Multiple Variance Analysis Between Sovereign Wealth Fund Strategy and Human Resource Efficiency

Source of Variance	SS	DF	MS	F-value	R^2	P-value	Result
Regression	3.694	1	3.694	11.371	18.5%	0.001	Significant
Error	16.242	50	0.325				
Total	19.936	51					

Table (5) shows that the regression model examining the relationship between Sovereign Wealth Fund strategy and human resource efficiency is statistically significant ($F = 11.371$, $p = 0.001$). The coefficient of determination (R^2 =

18.5%) indicates that the independent variable explains a meaningful proportion of the variation in human resource efficiency. This confirms the presence of a significant explanatory effect of the fund's strategy on human resource performance.

Sovereign Wealth Fund Strategy and Digital Wealth (V - X):

Regression equation:

V = 1.992 + 0.541X

Table (7) The Effect of the Sovereign Wealth Fund Strategy on Digital Wealth

Explanatory Variable	Regression Coefficient	Standard Error	t-value	Significance Level	Constant
Sovereign Wealth Fund Strategy (X)	0.541	0.119	4.546	0.00	1.992

The results in Table (6) indicate that the Sovereign Wealth Fund Strategy has a positive and statistically significant effect on Digital Wealth. The regression coefficient (0.541) and t-value (4.546) confirm the strength of this relationship at a 1% significance level. This suggests that enhancing sovereign wealth fund strategies contributes significantly to the growth of digital wealth.

Table (8) Multiple Variance Analysis Between Sovereign Wealth Fund Strategy and Digital Wealth

Source of Variance	SS	DF	MS	F-value	P-value	R^2
Regression	5.693	1	5.693	20.663	0.000	29.2%
Error	13.776	50	0.276			
Total	19.469	51				

The results of the multiple variance analysis indicate a statistically significant effect of the Sovereign Wealth Fund strategy on Digital Wealth, as reflected by the high F-value (20.663) and a P-value of 0.000. The model explains approximately 29.2% of the variation in Digital Wealth (R^2 = 0.292). This suggests a moderate explanatory power and supports the relevance of the proposed strategy.

Human Resource Management Strategy (Z) and Digital Wealth (V - Z):

Regression equation:

$V = 1.703 + 0.572Z$

Table (9) The Effect of Human Resource Management Strategy on Digital Wealth

Explanatory Variable	Regression Coefficient	Standard Error	t-value	Significance Level	Constant
Human Resource Management Strategy (Z)	0.572	0.124	4.932	0.00	1.703

The results in Table (8) indicate a positive and statistically significant effect of Human Resource Management Strategy on Digital Wealth. The regression coefficient ($\beta = 0.572$) and the t-value (4.932) confirm the strength of this relationship at a significance level of 0.00. This suggests that effective human resource management strategies contribute significantly to enhancing digital wealth.

Table (10) Multiple Variance Analysis Between Human Resource Management Strategy (Z) and Digital Wealth (V)

Source of Variance	SS	DF	MS	F-value	P-value	R^2
Regression	6.372	1	6.372	24.324	0.00	32.7%
Error	13.097	50	0.262			
Total	19.469	51				

Table (9) reports the results of the multiple variance analysis examining the relationship between Human Resource Management Strategy and Digital Wealth. The model is statistically significant ($F = 24.324$, $p < 0.01$), indicating a meaningful effect of the independent variable. Moreover, the coefficient of determination (R^2 = 32.7%) shows that Human Resource Management Strategy explains a substantial proportion of the variance in Digital Wealth.

Summary of Results:

Table (11) Acceptance of Study Hypotheses Based on Regression Equation and t-test (Effect Relationship)

Hypothesis	Accepted at 1%	Accepted at 5%
1. SWF strategy → Human resource efficiency	×	-
2. SWF strategy → Digital wealth	×	-
3. HRM strategy → Digital wealth	×	-
Total	3	0

Table (10) shows that none of the proposed hypotheses were accepted at either the 1% or 5% significance levels based on the regression equation and t-test results. This indicates the absence of a statistically significant effect relationship between the studied strategies and the dependent variables. Accordingly, the null hypotheses are not rejected for all tested relationships.

Note:

• × Accepted at 0.01

• – Accepted at 0.05

I. Conclusions

1) **Effectiveness of Sovereign Wealth Funds in Enhancing Human Resource Efficiency**: The statistical analysis revealed a significant impact relationship between sovereign wealth fund strategies and human resource management efficiency, reflecting the vital role of these funds in supporting human capital development.

2) **Impact of Sovereign Wealth Funds on Enhancing Digital Wealth**: Regression analysis showed that sovereign wealth fund strategies explain a significant portion (29.2%) of the variance in digital wealth, indicating the potential of directing investments to strengthen digital infrastructure.

3) **Impact of Human Resource Management Strategy on Digital Wealth**: The study demonstrated that human resource management strategies have a direct and effective influence on digital wealth, highlighting the integration between human efficiency and digital transformation.
4) **Weak Investment in Non-Oil Sectors**: Despite the accumulation of oil surpluses, the absence of a clear strategy for utilizing them has hindered investments in vital non-oil sectors such as tourism and human capital, limiting opportunities for sustainable development.
5) **Insufficient Utilization of Successful International Experiences**: Iraq has not adequately benefited from the experiences of leading countries (such as Norway and the UAE) in managing sovereign wealth funds to direct resources toward multidimensional sustainable development.
6) **The Digital Environment as a Strategic Opportunity for Economic Transformation**: The study indicates that digital transformation extends beyond the technical domain to include human dimensions, necessitating systematic investment in digital infrastructure and human competencies.
7) **Lack of Supportive Legislative and Institutional Frameworks**: The activation of sovereign wealth funds in Iraq faces legislative and institutional challenges that hinder the establishment of a stable and sustainable financial system to support vital non-oil sectors.

II. Recommendations

1) **Establishing a National Sovereign Wealth Fund with a Developmental Investment Doctrine**: It is recommended to establish an independent Iraqi sovereign wealth fund managed according to international best practices, focusing on human capital development and supporting the digital and tourism sectors.

2) **Allocating Fixed Percentages of Oil Surpluses to Non-Oil Sectors**: A law should be enacted mandating the allocation of a specific percentage of annual oil surpluses for investment in education, technology, and smart tourism.
3) **Building Strategic Partnerships with International Sovereign Wealth Funds**: It is advised to form partnerships with global sovereign wealth funds to transfer expertise and establish joint projects in digital infrastructure and technical education.
4) **Enhancing Governance and Transparency in Sovereign Fund Management**: The fund's success requires a strict governance framework that includes transparency, accountability, and risk management to ensure investments are directed toward strategic national goals.
5) **Digitally Restructuring Human Resource Management Systems**: The study recommends the development of integrated digital human resource systems to improve recruitment, training, and data-driven performance incentives.
6) **Launching Initiatives to Train Digital Talents in the Tourism Sector**: National training programs should be adopted to develop the digital skills of workers in the tourism sector, enhancing Iraq's ability to attract tourists and deliver smart services.
7) **Developing a National Roadmap for Digital Wealth Transformation**: It is recommended to adopt a nationwide roadmap that defines the vision, objectives, and strategic projects for transitioning toward digital wealth as a key driver of economic growth.

References

1. Abrihi, Ahmed. (2009). *The Global Financial Crisis and Its Impact on the Financial Sector*. Bayt Al-Hikma, Baghdad.
2. Abrihi, Ahmed Ali. (2011). *Oil Economy and Oil Investment in Iraq*. Bayt Al-Hikma, Baghdad.
3. Adrian, Tobias. (2007). *Assessing Risks to Global Financial Stability*. IMF. https://www.imf.org/~/media/Websites/IMF/imported
4. Aizenman, Joshua. (2008). *Governance and Sovereign Wealth Funds*. National Bureau of Economic Research (NBER).
5. Al-Atwani, Khalid Shami Nashour. (2016). *The Developmental Role of Sovereign Wealth Funds in Selected Countries with Special Reference to Iraq Development Fund* (Master's Thesis, Mustansiriyah University).
6. Al-Momani, Ghazi Falah. (2009). *Investment Portfolio Management*. Dar Al-Manahij, Amman – Jordan.
7. Al-Rawi, Ahmed Omar. (2017). *International Finance and Its Economic and Social Impacts: An Analytical Study of Iraq's Debt*. Dar Al-Doctor, Baghdad.
8. Al-Subti, Wasila & Latifa. (2017). *Sovereign Wealth Funds: Investment Strategies and Economic Effects (2005–2014)*. *Al-Quds Open University Journal*, Vol. 2, Issue 7.
9. Alsweilem, K., Cummine, A., Rietveld, M., & Tweedie, K. (2015). *Sovereign Investor Models: Institutions and Policies for Managing Sovereign Wealth*. Harvard Kennedy School.
10. Ammar, W., Taher, B., & Jafari. (2017). *Sovereign Wealth Funds: Wealth Management in Times of Crisis – The UAE Experience*. *Shoaa Journal for Economic Studies*, Issue 1.
11. Bagattini, Gustavo Yudi. (2011). *The Political Economy of Stabilization Funds: Measuring Their Success in Resource-Dependent Countries*. IDS Working Paper 356.
12. Beck, Roland & Fidora, Michael. (2008). *The Impact of Sovereign Wealth Funds on Global Financial Markets*. *ECB Occasional Paper Series*, No. 91.
13. Blundell, A., Hu, Y., & Yermo, J. (2008). *Sovereign Wealth and Pension Fund Issues*. *OECD Working Paper on Insurance and Private Pensions*, No. 14.
14. Cehajic, A. (2009). *Sovereign Wealth Funds: Contingent Risks and a Laissez-Faire Approach with a "Just in Case" Reactive Regulatory Framework*.
15. Chhaochharia, V. & Laeven, L. (2008). *Sovereign Wealth Funds: Their Investment Strategies and Performance*. IMF, CEPR, ECGI.
16. Cumming, D., *et al*. *The Oxford Handbook of Sovereign Wealth Funds*. Oxford University Press. https://doi.org/10.1093/oxfordhb/9780198754800.001.0001

17. Cumming, Douglas, and others (eds), (2017). *The Oxford Handbook of Sovereign Wealth Funds*, Oxford Handbooks (2017; online edn, Oxford Academic, https://doi.org/10.1093/oxfordhb/9780198754800.001.0001.
18. Devlin, W. & Brummitt, B. (2007). *A Few Sovereigns More: The Rise of Sovereign Wealth Funds*. *Economic Roundup*, Australian Treasury, Spring.
19. Engstrom, John & Copley, Paul A. (2004). *Essentials of Accounting for Governmental & Not-for-Profit Organizations* (7th ed.). McGraw-Hill/Irwin.
20. Ezzeddine, Suzan Mohammed. (2016). *The Extent to Which the Iraq Development Fund Meets Santiago Principles: A Legal and Institutional Analysis*. *University of Baghdad Journal of Economic and Administrative Sciences*, Vol. 22, Issue 87.
21. Gordon, E., Morse, T., Pally, T., Al-Hiti, *et al*. (2007). *Oil and Tyranny: The Political Economy of the Rentier State*. Institute of Strategic Studies, Iraq.
22. Ghoneim, O.M., & Abu Zant, M. (2010). *Sustainable Development: Philosophy, Planning Methods, and Measurement Tools*. Dar Al-Safa, Amman.
23. Griffith-Jones, S. & Ocampo, J.A. (2010). *Sovereign Wealth Funds: A Developing Country Perspective*. Foundation for European Progressive Studies.
24. Husain, A., Arezki, R., Breuer, P., & Aoun, M.C. (2015). *The New Challenges for Oil-Based Sovereign Wealth Funds*. IFRI & OCP Policy Center.
25. International Forum of Sovereign Wealth Funds (IFSWF). (2021). *Santiago Principles: Guidance and Implementation*.
26. International Labour Organization (ILO). (2022). *Pension Systems and Sovereign Wealth Funds*. Geneva: ILO Publications.
27. International Monetary Fund (IMF). (2023). *Macroeconomic Role of Sovereign Wealth Funds: A Policy Framework*. Washington, DC, pp. 12–13, 45–50.
28. Le Borgne, E. & Medas, P. (2007). *Sovereign Wealth Funds in the Pacific Island Countries: Macro-Fiscal Linkages*. *IMF Working Paper No. 07/297*.
29. Lowery, C. (2007). *Remarks on Sovereign Wealth Funds and the International Financial System*. U.S. Department of the Treasury.
30. Mehrara, M., Rezazadeh, A., Karsalari, & Haghiri, F. (2012). *Oil Fund and the Instability of the Macro-Economy in Oil-Rich Countries*. *World Applied Sciences Journal*, 16(3), 331–336.
31. OECD. (2020). *Sovereign Wealth Funds and National Objectives*. Paris: OECD Publishing.
32. OECD. (2021). *Natural Resource Governance and Sovereign Wealth Funds*. Paris: OECD Publishing.
33. Saleh, Mohammed Abdul. (2014). *Poverty in Iraq Between Investment Allocations and Price Levels (2003–2008)*. *Dananir Journal*, Vol. 1, Issue 6.

34. Saleh, Muzher Mohammed. (2010). *An Introduction to the Political Economy of Iraq: From Economic Centralism to Market Democracy*. Bayt Al-Hikma, Baghdad.

35. Sovereign Wealth Fund Institute (SWFI) & Investopedia. (2024). *Global Sovereign Wealth Fund Report*. New York.

36. Ter-Minassian, Teresa. (2007). *The Role of Fiscal Institutions in Managing the Oil Revenue Boom*. IMF, Fiscal Affairs Department.

37. Thuwaini, Al-Atwani, K.S.N., & Falah, H. (2017). *Prospects for Establishing a Sovereign Wealth Fund in Iraq*. Baghdad Economic Forum Workshop.

38. Truman, Edwin M. (2007). *A Scoreboard for Sovereign Wealth Funds*. Peterson Institute, Policy Brief, October.

39. Truman, Edwin M. (2008). *Myths About Sovereign Wealth Funds*. Peterson Institute for International Economics.

40. United Nations Conference on Trade and Development (UNCTAD). (2020). *Privatization and Resource Management*. Geneva: UNCTAD Publications.

41. United Nations Development Programme (UNDP). (2024). *Development Financing through Sovereign Wealth Funds*. New York: UNDP.

42. Wan Leong. (2006). *International Reserves Accumulation in East Asia*. *International Review of Business Research Papers*.

43. Weiss, M., & Clara, M., Miriam. (2016). *Unlocking Domestic Investment for Industrial Development*. *UNIDO*, Working Paper Series No. 12.

44. William, M. (2011). *Why Your Sinking Fund Costs You Money*.

45. World Bank. (2022). *Financial Stability and Sovereign Wealth Funds in Emerging Markets*. Washington, D.C.: World Bank Group.

46. World Economic Forum. (2021). *Investment Strategies for Central Bank Reserves*. Geneva: WEF Reports.