

**Sudan University of Science & Technology
College of Postgraduate Studies**

**THE IMPACT OF HUMAN CAPITAL ON
ECONOMIC GROWTH IN SUDAN.
(1970-2005)**

**أثر رأس المال البشري علي النمو الاقتصادي في السودان.
(1970-2005)**

**A Thesis submitted in fulfillment of the requirement for the Degree of
Doctor of Philosophy in Economics**

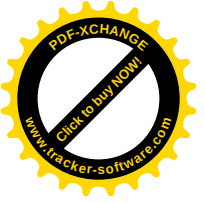
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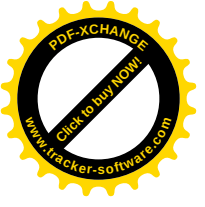
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بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

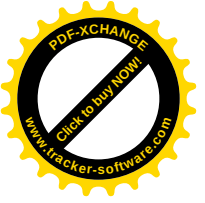


قال تعالى:

﴿وَإِذْ قَالَ رَبُّكَ لِلْمَلَائِكَةِ إِنِّي جَاعِلٌ فِي الْأَرْضِ خَلِيفَةً قَالُوا أَتَجْعَلُ فِيهَا مَنْ يُفْسِدُ فِيهَا وَيَسْفِكُ الدِّمَاءَ وَنَحْنُ نُسَبِّحُ بِحَمْدِكَ وَنُقَدِّسُ لَكَ قَالَ إِنِّي أَعْلَمُ مَا لَا تَعْلَمُونَ﴾

صدق الله العظيم

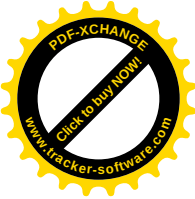
سورة البقرة - الآية (30)



DEDICATED TO:

MY PARENTS, MY HUSBAND, MY CHILDREN,

MY BROTHERS AND MY SISTERS, THOSE WHO GAVE MY LIFE
ITS MEANING.



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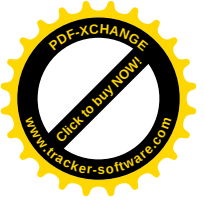
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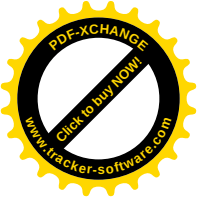
Abstract

This study deals with the impact of human capital on economic growth in Sudan. It is scientifically crucial to thoroughly identify the human capital as average years of schooling of population aged 15 years and above .This study handles the concepts of human capital, its measurements, the theoretical and empirical literature of human capital and economic growth on the local (Sudan) and international levels.

The importance of the study was to shed light on human capital and its effect on economic growth in Sudan, in addition , there are few studies in the field of the study in Sudan, and so it might be an addition to the Sudanese library.

This study examines the effect of human capital on the economic growth in Sudan, by considering the reverse impact or causation of the economic growth on human capital accumulation. So to analyze this simultaneity between Human Capital and Economic Growth, the simultaneous equations were used. A Three-Stage Least Square technique was applied on the model by using data for the period 1970-2005.

By the estimation of the model that describes the behavior of the economy, the study obtained the parameters which characterize the process of human capital accumulation. The study found that, the human capital has a positive effect on economic growth while the retirement effect has a negative effect. On the other hand , the study found that, the economic growth has a positive and significant effect on human capital in Sudan on the data sample



which was used . So there is a reverse impact or causation between human capital and economic growth.

The most important recommendations for this study are that efforts should be geared towards improving the quality of education to enhance the skills of the labor force through the training which will increase productivity that will help increase the per capita GDP which in turn have a favorable impact on human capital accumulation which will help greatly in maintaining good economic performance.

مستخلص الدراسة

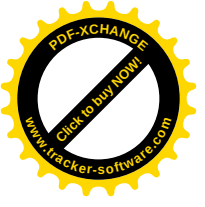
هذه الدراسة تتعامل مع تأثير رأس المال البشري على النمو الاقتصادي في السودان. و يُعرّف رأس المال البشري كمتوسط سنوات الدراسة للفئة العمرية 15 سنة فما فوق . هذه الدراسة تُعالج مفاهيم رأس المال البشري، ومقاييسه، والأدبيات النظرية والتجريبية لرأس المال البشري والنمو الاقتصادي على المستوى المحلي والدولي.

تتبع أهمية الدراسة من أنها سلّطت الضوء على رأس المال البشري وتأثيره على النمو الاقتصادي في السودان، بالإضافة إلى ندرة البحوث في مجال الدراسة في السودان، لذا يمكن أن تكون هذه الدراسة إضافة إلى المكتبة السودانية في هذا المجال.

تختبر هذه الدراسة تأثير رأس المال البشري على النمو الاقتصادي في السودان، آخذين في الاعتبار التأثير العكسي أو اثر رأس المال البشري على النمو الاقتصادي وكذلك تأثير النمو الاقتصادي على تراكم رأس المال البشري. لذا لتحليل هذه الآنية، استعملت المعادلات الآنية، وطُبقت طريقة المربعات الصغرى ذات الثلاث مراحل ِ على النموذج باستخدام البيانات للفترة 1970-2005.

وبتقدير النموذج الذي يَصِفُ سلوك الاقتصاد، حَصَلْنَا على المعاملات التي تميّز عملية تراكم رأس المال البشري. ووجد أن رأس المال البشري له تأثير ايجابي على النمو الاقتصادي بينما التقاعد له تأثير سلبي عليه. و من الناحية الأخرى، وجد أن النمو الاقتصادي له تأثير إيجابي وهام على تراكم رأس المال البشري في السودان على عينة البيانات التي استخدمت.

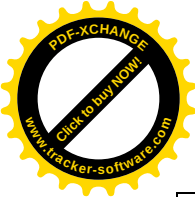
إنّ التوصية الأكثر أهمية لهذه الدراسة هي إن الجهود يجب أن تُسَخَّر نحو تحسين نوعية التعليم، وتحسين مهارات القوى العاملة من خلال التدريب، وذلك يؤدي إلى زيادة الإنتاجية الشئ الذي يقود



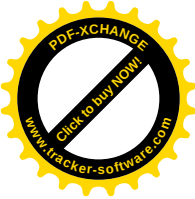
لزيادة في الناتج المحلي الإجمالي والذي بدوره يؤثر إيجابا على تراكم رأس المال البشري مما يساعد كثيرا في المحافظة علي أداء اقتصادي جيد.

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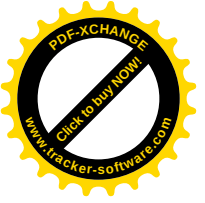
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LIST OF ABBREVIATIONS

LDCs	Less Developing Countries.
EU	European Union.
MRW	Mankiw, Romer and Weil.
GDP	Gross Domestic Product.
GDP per Capita	Gross Domestic Product per Capita.
TFP	Total Factor Productivity.
IALS	International Adult Literacy Survey.
IEA	International Association for the Evaluation of Educational Achievement .
IAEP	International Assessment of Educational progress.
OECD	Organization of Economic Corporation and Development Countries.
IMF	International Monetary FUND.
CBS	Central Bureau of Statistics.
WB	World Bank .