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## **DEDICATION**

To the person who proved to me  
that small business can  
successfully keep a home, warm a  
family and contribute to the  
educational fees of children.  
To my mother "Roqia Abu-Bakr  
Ahmed" who was once a small  
business owner.

Mohamed Elsayed Adam  
April 2009

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## ABBREVIATIONS

ABS	Australian Bureau of Statistics
ACORD	Agency for Cooperation and Research in Development
CE	Corporate Entrepreneurship
CIS	Comprehensive Industrial Survey
COMESA	Common Market for Eastern and Southern Africa
EO	Entrepreneurship Orientation
EUREKA	European Research Coordination Agency
GDP	Growth Domestic Product
GEM	Global Entrepreneurship Monitor
GNP	Growth national Product
GTZ	Gesellschaft für Technische Zusammenarbeit (German Technical Cooperation)
HQ	Headquarter
HP	Horsepower
HRD	Human Resources Development
ICS	Information and Communication System
ICT	Information and Communication Technology
IFAD	International Fund for Agricultural development
ILC	International Labor Conference
IDPs	Internally Displaced People

ILO	International Labor Organization
IIMs	Indian Institutes of Management
IITs	Indian Institutes of Technology
IRC	International Rescue Committee
ISCI	International Standard for Industrial Classifications
ISO	International Organization for Standardization
ITDG	Intermediate Technology Development Group
KADA	Kassala Area Development Activity
LDCs	Less-developed countries
MBO	Management Buy Out
MBI	Management Buy In
MNE	Multinational Enterprises
nAch	Need for Achievement
NGOs	Non-governmental Organizations
NR	Natural Resources
OECD	Organization for Economic Cooperation and Development
PhD	Philosophy Doctorate
RBP	Resource Based Perspectives
RBV	Resource Based View
R&D	Research and Development
SBA	Small Business Administration
SD	Sudanese Dinars
SDG	Sudanese Genie
SK	Skills and Knowledge
SMEs	Small and Medium Scale Enterprises
SMMEs	Small, Medium and Micro Enterprises
SPSS	Statistical Package for Social Sciences
SRC	Sudanese Red Crescent
UK	United Kingdom
UN	United Nations
UNHCR	United Nations High Commissioner for Refugees
UNIDO	United Nations Industrial Development Organization
US	United States
USA	United States of America
USD	United States Dollar
VRIO	Values, Rarity, Imitability, and Organisation
VTC	Vocational Training Centre
WFP	World Food Programme
WTO	World Trade Organization

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## ABSTRACT

The importance of this research comes in a time when most of the developed and developing countries are moving strongly towards state policies encouraging the growth and development of the private sector and self-employment. In fact, the industrial sector in Sudan is having the potential to play a great role in the economy given the availability of different kind of inputs in the country. In Sudan 162,682 employees are working in the manufacturing establishments. Small business contributes 40% of total employment in the manufacturing establishments. Specifically in Kassala State, the reason why this research is directed towards SMEs is due the composition of the large as well as SMEs (Small & Medium Sized Enterprises) sector in the state economy. Large and medium scale industries account for 38 industries employing 4,734; while Small business alone accounts for 912 industries which employ 2,280 in the manufacturing sector.

This research investigates the impact of entrepreneurship capabilities on the growth/performance of industrial small and medium sized enterprises. Specifically the research focuses on internal and firm level capabilities represented by entrepreneurship orientation, technology, financial and human resources. The research also considers the external capabilities which are divided into two main capabilities: partnership linkages and sponsorship linkages. The third dimension of the research is entrepreneurship development macro policies including infrastructure, regulations, taxation policies and public administration of SMEs.

The research draws different arguments and perspectives in the field of entrepreneurship; this is due to the reality that this discipline is still new in Sudan. Therefore availing rich literature will help further researches in this area. The literature is supported by relevant theoretical foundations and previous studies in the domain. Descriptively, historical and contemporary data were gathered from the case study to describe the context and characteristic of Kassala state particularly the economic and infrastructure foundations. Furthermore; statistics on industrial SMEs were presented including the special characteristics of industrial establishments in Kassala state. The data was collected from a sample of 244 existing SMEs in the industrial (manufacturing) sector in Kassala state in December 2008. The sampling was limited to existing industrial SMEs registered in the database of Comprehensive Industrial Survey conducted in 2001. A stratified, systematic random sampling with proportionate allocation technique was used.

The unit of analysis in this research is the industrial establishment. The research data was analyzed using SPSS software; bivariate, multivariate correlation analysis (Pearson's  $r$  and Spearman's  $\rho$ ) and cross tabulation were used in the descriptive statistical analysis. Parametric tests were adopted in analyzing the data; simple regression employed in the testing of separate research hypotheses and multiple-regression used in testing the overall research model which assumes the impact of entrepreneurship capabilities on the growth of industrial SMEs. The general research model proves significance indicating the validity of the relationship between the independent and dependent variable although some specific variable are insignificant. All the significant relationships were traced and a unique model was developed together with the findings of the research.

Despite the similarities between this research and other previous studies on entrepreneurship; the uniqueness of this research compare to other relevant researches on subject matter among small enterprises is on the following: This research represents the first scientific research on entrepreneurship on SMEs in Sudan, it takes employees' growth as indicator of business growth and performance; while most previous study focus on profitability and sales growth, and it investigates the effects of entrepreneurship development macro policies as an element ignored by most of the previous studies. The research is concluded with recommendations classified as; general recommendations, specific recommendations and recommendations for future researches. All in all the recommendations critically build on the findings of the study and made to be oriented towards improving realities, studies, R&D, and policies concerning SMEs.

### مستخلص البحث

تأتي أهمية هذا البحث في وقت تتجه فيه معظم البلدان المتقدمة والبلدان النامية نحو سياسات تشجيع نمو وتطوير القطاع الخاص والعمل الحر والصناعات الصغيرة. القطاع الصناعي في السودان لديه الامكانية للعب دور كبير في الاقتصاد نظرا لتوافر المدخلات المختلفة. والاهم من ذلك، فإن 96.2% من الصناعات في السودان من قطاع الصناعات الصغيرة.

يساهم قطاع الصناعات في السودان بنسبة 1.7 % من إجمالي العمالة بإحصائية تقدر بـ 162,682 عامل وتساهم المنشآت الصناعية الصغيرة بنسبة 40 % من إجمالي هذه العمالة. في ولاية كسلا، تقدر الصناعات الصغيرة بحوالي 912 صناعة. ونسبة لهذا الدور الذي تلعبه الصناعات الصغيرة والمتوسطة دورها في الاقتصاد السوداني تم توجيه هذا البحث لدراسة هذا القطاع.

يتناول هذا البحث أثر قدرات الريادة الادارية على النمو والاداء الصناعي للمؤسسات الصغيرة والمتوسطة. ويركز البحث على وجه التحديد على القدرات الداخلية للمشروعات والمتمثل في الإدارة وتحمل المخاطر، التكنولوجيا، والموارد المالية والبشرية. كما يأخذ البحث أيضا في الاعتبار القدرات الخارجية والتي تم تقسيمها الى قسمين رئيسيين: روابط الشراكة وروابط المنح والاعانات. اما المنح الثالث لهذا البحث يتناول السياسات الكلية لتنظيم المشروعات والريادة الادارية بما في ذلك البنية التحتية والأنظمة والسياسات الضريبية والإدارة العامة للمشاريع الصغيرة والمتوسطة.

يتطرق البحث لوجه مختلف يتعلق بمجال الريادة الادارية وتنظيم المشروعات؛ ويرجع ذلك إلى حقيقة أن هذا المجال لايزال جديدا في السودان. وبالتالي فإن اتاحة مواد علمية سوف يساعد على المزيد من البحوث في هذا المجال. تم جمع بيانات دراسة الحالة لوصف الخصائص الاساسية لولاية كسلا خاصة الاقتصادية منها والبنية التحتية. علاوة على ذلك؛ فقد تم عرض الاحصائيات الصناعية للمؤسسات الصغيرة والمتوسطة بالإضافة للمميزات الخاصة للمنشآت الصناعية في ولاية كسلا.

تم جمع البيانات من عينة تتألف من 244 من المشروعات الصناعية الصغيرة والمتوسطة في القطاع الصناعي بولاية كسلا. اقتصر عينات البحث على المنشآت الصناعية الصغيرة والمتوسطة القائمة والمسجلة منذ عام 2001 في قاعدة بيانات المسح الصناعي الشامل. وقد تمت المعاينة بأسلوب العينات العشوائية القطاعية بتوزيع تناسبي.

تم تحليل بيانات البحث بواسطة برنامج التحليل الاحصائي للبيانات (SPSS)، والتحليل الثنائي والمتعدد للمتغيرات، كما تم استخدام طريقة الجداول المتقاطعة في التحليل الإحصائي الوصفي. وتم توظيف طريقة الانحدار البسيط في تحليل فرضيات البحث الفردية وطريقة الانحدار المتعددة في اختبار النموذج الكلي للبحث والذي يفترض اثر الريادة الادارية على نمو المشروعات الصغيرة والمتوسطة. اثبت النموذج العام للبحث مدى أهمية العلاقة بين المتغير المستقل والتابع بالرغم من أن بعض المتغيرات ليست لها علاقة ذات دلالة احصائية. كل العلاقات ذات الدلالات الاحصائية قد تم تتبعها وتم استنتاج نموذج فريد يتماشى مع نتائج البحث.

على الرغم من أوجه التشابه بين هذا البحث وبعض البحوث والدراسات السابقة التي تمت خارج السودان في الموضوع قيد الدراسة؛ إلا أن هذا البحث قد تفرد ببعض السمات والمتمثلة في:

- ♦ يعتبر هذا البحث من اولى المحاولات لدراسة الريادة الادارية في قطاع الصناعات الصغيرة والمتوسطة في السودان.
  - ♦ يختلف هذا البحث في تناوله الزيادة في عدد العاملين كمتغير لاداء ونمو المشروعات في حين ان معظم الدراسات السابقة تركز على حجم المبيعات والربحية.
  - ♦ هذا البحث يتناول اثر السياسات الكلية لتنظيم المشروعات والريادة الادارية كقضية لم يتم التطرق اليها في كثير من البحوث السابقة.
- وخلص البحث إلى نتائج نظرية وعملية كما استخلص توصيات تم تصنيفها الى: توصيات عامة ، وتوصيات محددة وتوصيات للبحوث والدراسات المستقبلية.