

**PURSUIT OF EXCELLENCE BY MUSLIM SCIENTISTS
WITH A SPECIAL REFERENCE TO IBN SINA**

MOHD HISHAMUDDIN A HAMID

**FACULTY OF SCIENCE
UNIVERSITY OF MALAYA**

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MOHD HISHAMUDDIN A HAMID

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**DEPARTMENT OF SCIENCE AND TECHNOLOGY STUDIES
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I hope this dissertation which is a very small contribution to the Ummah will complement the other great contributions from various individuals and organizations towards rejuvenating the Ummah from its present doldrums and become an Ummah respected and awed as the earlier generations of the Ummah. I wish to recall a story about Prophet Ibrahim AS when he was thrown into the raging fire by King Namrud. A tiny bird which carried water in its beak to douse the raging fire in order to help the Prophet Ibrahim AS. It was ridiculed by the other animals on his hopeless effort but he answered that he did it within his best effort and capability and can sincerely answer the Al Mighty's enquiry in the hereafter.

I sincerely pray and hope that this dissertation will bring some good to the Ummah and this world and be accepted by Allah SWT as a good deed.

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ORIGINAL LITERARY WORK DECLARATION

Name of Candidate : **MOHD HISHAMUDDIN BIN A HAMID** IC No. **580128015679**

Registration/Matrix No. : **SGQ 030004**

Name of Degree : **MASTER OF SCIENCE**

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Name: : Abdul Kariem Arof

Designation: **Professor**
Department of Physics
University of Malaya

ABSTRACT

The Pursuit of Excellence by Muslim Scientists with a Special Reference to Ibn Sina

This dissertation has the objective of studying the pursuit of excellence by Muslim Scientists during the height of Islamic Civilization with a special reference to Ibn Sina. It is hope that through this study we can obtain some information or guidelines which can be used and emulated by present day scientists to achieve the excellence that the Muslims Scientists of that time had attained. Why do we need to achieve that level of excellence? The present day predicament of the Muslim *Ummah* where we are ostracized, discriminated and looked down upon by friends and foes alike. We have to redeem ourselves in the eyes of the world and especially in the eyes of Allah AlMighty that we are the best *Ummah* and Islam is the highest way of life and be worthy of the blessing of Islam. The excellence of the Muslim scholars and scientists of yesteryears has to be recapitulated. Why Ibn sina? Ibn Sina is the most famous Muslim scholar of the Islamic civilization and some even cited him as the most excellent with his wide ranging work from medicine, astronomy, philosophy, language, politics and many other various fields. His work and life had been documented and studied since his time until the present time.

In this study the author presented the criteria for excellence and put forward the hypothesis of *Iman* as the special criteria that made the difference between the Muslims and the non-Muslims. The excellence and contributions of Muslim scientists during the height of Islamic civilization between the 7th-14th centuries were incomparable and undisputed as compared civilizations. This period produced many distinguished Muslim scholars in many varying fields of studies and their work were the basis of the development of western science. Some scholars attributed the advent of western science from the findings and works of Muslim scientists without which western science will not have achieved or attained the present dominance and prominence.

Ibn Sina's life from the influence of his parents, his earliest education and his surroundings seems to have molded his character into a dedicated and resilient scholar. He was exposed to knowledge and intellectual discussion various fields at an early age and became a competent practitioner of medicine by the age of 18. Ibn Sina had many special characteristics which can be emulated by later scholars. His dedication, his confidence, his resilience despite the hostile and rough conditions he had to endure, his power of concentration being able to work continuously for hours sometimes under difficult circumstances. Ibn Sina's work on medicine and philosophy were and until today the most respected and most studied. His *Canon of Medicine* were used as the primary text for the study of medicine with some institutions in Europe using it even until the 19th century. Ibn Sina from the facts presented was a person with *Iman* and his early education in religious studies and able to memorize the whole of the Al Quran had made him the renowned scholar that he is although with many eccentricities.

The *Ummah* to recap the excellence of yesteryears, they have to study their history, the *sirah* of the Prophet Mohamad SAW, the earlier Quranic generation of the *sahabahs*, the *tabiin* and the scholars. Many of their efforts and practices that made them knowledgeable and respected had not been sustained thus resulting in the mundane and oppressed *Ummah* of the period after the 14th century until

present. The factors which brought Islamic Civilization to the height of its glory were scrutinized and also that which brought the decline in order to find the remedies.

In conclusion the *Ummah* was blessed with excellence and glory when they have *Iman* and practiced Islam as a way of life. The lessons from the period of glory of the Islamic Civilization have to be learnt and emulated and pray and be confident that Islam will bring again the glory in this world and the hereafter.

ABSTRAK

The Pursuit of Excellence by Muslim Scientists with a Special Reference to Ibn Sina

Kecemerlangan Para Saintis Muslim dengan Rujukan Khas kepada Ibn Sina

Dissertasi ini mempunyai matlamat untuk mengkaji *pursuit* kecemerlangan para saintis Muslim semasa Tamadun Islam berada pada tahap kegemilangannya dengan rujukan istimewa kepada Ibn Sina. Adalah diharapkan melalui kajian ini kita dapat mencungkil maklumat atau satu panduan yang boleh digunakan dan dijadikan teladan untuk para saintis masa kini untuk mencapai kecemerlangan seperti yang tercapai oleh para saintis Muslim pada zaman itu. Mengapa perlu kita mencapai kegemilangan seperti dahulu? Umat Islam masa kini menghadapi cabaran yang getir dimana mereka dipandang serong, dihina, didiskriminasikan dan dipandang rendah oleh kawan dan lawan. Umat Islam perlu mempertahankan dan meningkatkan maruah dan harga diri dipandangan mata dunia terutama sekali pada pandangan Allah SWT bahawa umat Islam adalah umat yang terbaik dan Islam adalah cara hidup yang terbaik dan juga bahawa Umat Islam layak menerima rahmat Islam itu. Kecemerlangan ilmuan dan saintis yang terdahulu perlu digarap semula. Mengapa Ibn Sina? Ibn Sina merupakan saintis Muslim yang paling masyur dan dianggap oleh sesetengah kalangan sebagai yang tercemerlang dengan sumbangan ilmiah dalam pelbagai bidang seperti perubatan, astronomi, falsafah, bahasa, politik dan banyak lagi. Sumbangan ilmiah and kehidupan beliau telah dicatat dan dikaji semenjak zaman beliau sehingga sekarang.

Dalam kajian ini penulis telah membentangkan ciri untuk kecemerlangan dan mengenenahkan hipotesis bahawa Iman adalah ciri istimewa yang membezakan antara Muslim dengan yang bukan Muslim. Kecemerlangan dan sumbangan para saintis Muslim semasa kegemilangan tamadun Islam antara kurun ke 7 sehingga 14 tiada tolok bandingnya berbanding dengan zaman kegemilangan lain-lain tamadun. Zaman kegemilangan tamadun Islam telah menghasilkan ramai para saintis dalam pelbagai bidang dan hasil kerja mereka menjadi asas kepada pembangunan sains barat. Ramai ilmuan berpendapat bawa kemunculan sains barat adalah hasil pertemuan dan kajian yang dilakukan oleh para saintis Muslim dan tanpanya tidak mungkin sains barat mendapat kedudukan dan penguasaannya sekarang.

Pengaruh keluarga, pendidikan awal dan persekitaran masyarakat telah membentuk kehidupan Ibn Sina menjadi seorang ilmuan yang punyai jatidiri dan ketabahan yang tinggi. Dia telah didedahkan pada ilmu dan perbincangan ilmiah dalam pelbagai bidang pada umur yang muda dan telah menjadi pengamal perubatan yang cekap pada umur 18 tahun. Ibn Sina mempunyai banyak ciri-ciri istimewa yang boleh dicontohi oleh para saintis masa kini seperti jatidiri, keyakinan, ketabahan menghadapi rintangan dan halangan, ketekunan, keupayaan dan konsentrasi bekerja selama berjam-jam adakalanya dalam suasana yang sukar. Hasil kerja Ibn Sina dalam bidang perubatan dan falsafah telah dan masih lagi disanjung dan yang paling banyak dikaji. Buku beliau *Al Kanun fil Tibb*, telah digunakan sebagai teks utama pengajaran dalam bidang perubatan dan ada institusi/universiti di eropah yang telah menggunakannya sehingga

keabad 19. Dari kajian dan fakta yang dikemukakan Ibn Sina boleh dianggap sebagai orang yang beriman dan pendidikan awal beliau dalam bidang agama dan kebolehan menghafal keseluruhan Al Quran telah membentuk beliau menjadi ilmuan yang terbilang walaupun adakalanya bersikap aneh (eccentric)

Umat Islam jika ingin mengarap semula kegemilangan masa lampau perlu mengkaji sejarah, sirah Nabi Mohamad SAW, generasi Al Quran terawal iaitu para sahabat, para tabiin dan ilmuan. Banyak usaha dan amalan mereka yang membentuk mereka menjadi orang yang berilmu dan dihormati tidak diteruskan oleh generasi yang terkemudian mengakibatkan Umat Islam semenjak dari abad ke 14 sehingga sekarang, umat yang lemah dan diperkotak-katikkan. Faktor-faktor yang telah membawa Tamadun Islam ke puncak kegemilangannya telah diteliti dan begitu juga dengan yang telah membawa kemundurannya supaya suatu penawar dapat ditemukan.

Sebagai kesimpulannya, Umat Islam telah dirahmati dengan kecemerlangan dan kejayaan ketika mereka beriman dan melaksanakan Islam sebagai suatu cara hidup. Pengajaran dari zaman kegemilangan Tamadun Islam perlu dilaksanakan dan dicontohi, berdoalah dan yakinlah bahawa Islam akan membawa kegemilangan didunia ini dan didunia yang kekal abadi kemudiannya.

Abbreviations

AD	<i>Anno Domini</i> , Gregorian calendar
AH	After Hijrah, Muslim Lunar Calendar
Al Quran 93:06	Al Quran Chapter No :XX Verse No XX
AS	<i>Alaihisalam</i> , Salutations to the other prophets
ibid	<i>ibidum</i> , same reference
opcit	previous reference, different chapter
RA	<i>Radhiallahu anhu</i> , Salutations for companions (<i>sahabahs</i>) of the Prophet SAW
R & D	Research and Development
SAW	<i>Sallallahu alaihi wasalam</i> , Salutations to the Prophet Mohamad SAW
SWT	<i>Subhanawataala</i>
UK	United Kingdom
UN	United Nations
US	United States of America
USD	United States Dollar

NOTES:

<i>Words in Italics</i>	<ol style="list-style-type: none">1. Non English words except commonly accepted words such as Allah SWT, Al Hadith, etc2. Titles of books and articles
Fonts	Quotation from writers and speakers will be in non Times New Roman fonts or “”