



UNIVERSITI PUTRA MALAYSIA

**EXTERNAL FACTORS AFFECTING THE EFFICIENCY OF TAKAFUL
OPERATORS AND CONVENTIONAL LIFE INSURERS**

RUBAYAH BINTI YAKOB

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By

RUBAYAH BINTI YAKOB

**Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia,
in Fulfilment of the Requirements for the Degree of Doctor of Philosophy**

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Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfillment
of the requirement for the degree of Doctor of Philosophy

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May 2014

Chair: Zulkornain Bin Yusop, PhD
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The success of insurers as well as takaful operators is highly reliant on their financial management efficiency. Two functions that are vital to the financial management are risk and investment management. These 2 functions are said to be very important because it manages key elements in the operation of the insurer/takaful operator - risk, return and capital. The changes in consumer preferences and the risk of insolvency has created a strong impetus to the players in the industry to improve the efficiency of their financial management in order to survive and compete in this business. However, the efficiency of financial management depends on many other factors including macroeconomic factors and firm-specific characteristics. Thus, the main objective of this study is to identify the determinants of the efficiency of financial management, to be precise, efficiency of risk and investment management but merely focus on firm-specific characteristics that are not within the control of managers that is known as external factors. The sample of this study involves 20 firms consisting of 7 life insurers, 9 composite insurers and 4 takaful operators that consistently present in Malaysia throughout the period 2003 to 2007. The data is limited to life insurance, family takaful and investment-linked business. The dependent variable in this study is the efficiency score of risk and investment management, while the external/independent variables consist of operating systems (takaful operators versus conventional insurers), organizational form (mutual versus stock), consumer preference towards the investment-linked policy and size. The two-stage regression method is used in achieving the objective of this study. In the first stage, slack-based measure – data envelopment analysis (SBM-DEA) is applied in order to obtain the efficiency score of risk and investment management of each insurer/takaful operator. In the second stage, the efficiency scores calculated from the first stage is regressed with independent variables by using Tobit analysis. The result reveals that the mutual company (owned by the policyholders – non profit oriented) is having better risk management performance than their stock (owned by the shareholders – profit

oriented) counterparts in which the mutual company is also the takaful operator in this study. Indirectly, this indicates that the takaful operators are more efficient than conventional insurance companies in terms of risk management. In addition, the result also confirms that the large insurers/takaful operators are more efficient in terms of risk management. However, consumer preference is found to be insignificantly correlated with the efficiency of risk management. In contrast with risk management, size and organizational form is not the indicator of the investment management efficiency, but consumer preference towards the investment-linked policies is significantly and positively associated with investment management efficiency. From these results, the insurer/takaful operator is expected to enhance their risk management practices and investment strategies to ensure their role as risk bearer, financial service provider and intermediary can be preserved as well as accomplishing the requirements of their stakeholders. In response, the government should provide the infrastructure to support the improvement of financial management efficiency among insurers/takaful operator, mainly in regards of takaful operator's licenses, merger and acquisition, and the Syariah compliance investment mechanisms.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk ijazah Doktor Falsafah

**FAKTOR-FAKTOR LUARAN YANG MEMPENGARUHI KECEKAPAN
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Kejayaan penanggung insurans dan pengendali takaful adalah sangat bergantung kepada kecekapan pengurusan kewangan mereka. Dua fungsi yang penting bagi pengurusan kewangan adalah pengurusan risiko dan pengurusan pelaburan. Kedua-dua fungsi ini dikatakan sangat penting kerana ia menguruskan elemen utama di dalam operasi penanggung insurans/pengendali takaful – risiko, pulangan dan modal. Perubahan citarasa pengguna dan risiko ketidaksolvenan telah mencipta dorongan yang kuat kepada pemain-pemain dalam industri untuk memperbaiki kecekapan pengurusan kewangan mereka dalam usaha untuk bertahan dan bersaing dalam perniagaan ini. Walau bagaimanapun, kecekapan pengurusan kewangan bergantung kepada banyak faktor lain merangkumi faktor makroekonomi dan ciri-ciri khusus-firma. Oleh itu, objektif utama kajian ini ialah untuk mengenalpasti penentu kecekapan pengurusan kewangan, lebih tepat lagi, kecekapan pengurusan risiko dan pelaburan tetapi hanya memberi tumpuan kepada ciri-ciri khusus-firma yang tidak berada dalam kawalan pengurus yang dikenali sebagai faktor luaran. Sampel kajian ini melibatkan 20 firma yang mana terdiri daripada 7 penanggung insurans hayat, 9 penanggung insurans komposit dan 4 pengendali takaful yang wujud secara konsisten di Malaysia sepanjang tempoh 2003 hingga 2007. Data terbatas kepada perniagaan insurans hayat, takaful keluarga dan berkaitan pelaburan. Pembolehubah bersandar dalam kajian ini ialah skor kecekapan pengurusan risiko dan pelaburan, manakala pembolehubah luaran/tidak bersandar terdiri daripada system operasi (pengendali takaful lawan penanggung insurans hayat konvensional), bentuk organisasi (bersama lawan stok), citarasa pengguna ke arah polisi berkaitan pelaburan dan saiz. Kaedah regresi dua-tahap digunakan dalam mencapai objektif dalam kajian ini. Pada tahap pertama, *slack-based measure* – analisis penyampulan data diaplikasikan dalam usaha untuk mendapatkan skor kecekapan pengurusan risiko dan pelaburan setiap penanggung insurans/pengendali takaful. Seterusnya, pada tahap kedua, skor kesolvenan yang telah dikira daripada tahap pertama diregresikan dengan pembolehubah tidak bersandar dengan menggunakan analisa Tobit. Hasil kajian mendedahkan bahawa syarikat

bersama (dimiliki oleh pemegang polisi – tidak berorientasikan keuntungan) mengalami prestasi pengurusan risiko yang lebih baik berbanding rakan stok (dimiliki oleh pemegang saham – berorientasikan keuntungan) mereka di mana syarikat bersama juga merupakan pengendali takaful dalam kajian ini. Secara tidak langsung, ini menunjukkan bahawa pengendali takaful adalah lebih cekap berbanding syarikat insurans konvensional dari segi pengurusan risiko. Di samping itu, keputusan juga mengesahkan bahawa penanggung insurans/pengendali takaful yang besar adalah lebih cekap dari segi pengurusan risiko. Walau bagaimanapun, citarasa pengguna didapati tidak berkorelasi secara signifikan dengan kecekapan pengurusan risiko. Berbeza dengan pengurusan risiko, saiz dan bentuk organisasi bukan penunjuk kecekapan pengurusan pelaburan, tetapi citarasa pengguna ke arah polisi berasaskan pelaburan berhubung secara signifikan dan positif dengan kecekapan pengurusan pelaburan. Daripada hasil kajian ini, penanggung insurans/pengendali takaful dijangka dapat meningkatkan amalan pengurusan risiko dan strategi pelaburan untuk memastikan peranan mereka sebagai penanggung risiko, penyedia perkhidmatan kewangan dan pengantara boleh dipelihara serta mencapai keperluan pemegang kepentingan mereka. Sehubungan dengan itu, kerajaan perlu menyediakan infrastruktur untuk menyokong peningkatan kecekapan pengurusan kewangan dalam kalangan penanggung insurans/pengendali takaful, terutamanya dalam hal lesen pengendali takaful, penggabungan dan pengambilalihan, dan mekanisme pelaburan patuh Syariah.

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I certify that an Examination Committee has met on May 6, 2014 to conduct the final examination of Rubayah Binti Yakob on her thesis entitled “External Factor Affecting The Efficiency of Takaful Operators and Conventional Life Insurers” in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Doctor of Philosophy.

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