EXPERT SYSTEM FOR CLASSIFYING SHARIAH COMPLIANCE E-BUSINESS COMPANIES

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UNIVERSITI UTARA MALAYSIA
2008
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ABSTRAK

eBiz xSys adalah sistem pakar yang dibangunkan bagi memenuhi objektif penyelidikan ini. Terdapat tiga objektif penyelidikan ini dijalankan. Objektif utama adalah untuk membangunkan sistem pakar yang dapat mengklasifikasikan perniagaan yang dijalankan atas talian (internet) samada memenuhi kehendak Shariah ataupun tidak. Selain itu, penyelidikan ini juga bertujuan untuk mengembangkan atau memperluaskan skop sijil Halal kepada perniagaan jenis ini. Di samping itu, ia juga bertujuan untuk menghasilkan satu panduan kepada pihak pengurusan perniagaan ini mengenai cara, kaedah dan langkah-langkah yang perlu atau boleh di ambil untuk memastikan perniagaan yang mereka jalankan adalah berasaskan Shariah.

Penyelidikan yang dijalankan ini amat berguna bukan sahaja kepada pihak pengurusan perniagaan tersebut, tetapi ia juga penting kepada pengguna yang lainnya seperti pembeli (consumer). Ini adalah kerana, hasil kajian dapat digunakan dan diaplikasikan oleh pihak pengurusan perniagaan manakala pembeli pula dapat melihat senarai perniagaan yang telahpun diklasifikasikan sebagai berlandaskan Shariah menerusi portal komuniti yang dibangunkan.

Hasil daripada kajian ini bukan sahaja melahirkan sebuah sistem pakar yang dapat mengkategorikan perniagaan-perniagaan ini kepada berlandaskan Shariah atau tidak. Malah, ia juga secara tidak langsung telah menyediakan panduan kepada pihak pengurusan untuk menjadi sebahagian daripada perniagaan yang berlandaskan Shariah. Ini secara tidak langsung akan dapat menambahkan keuntungan mereka. Kajian ini juga telah menghasilkan sebuah portal komuniti yang dapat membantu para pembeli mendapatkan maklumat mengenai status Halal sesebuah syarikat dan perniagaannya.
ABSTRACT

eBiz xSys is an expert system that has been developed in order to meet the objective of this research. There are three objectives for this research. The main objective is to develop an expert system that classify Shariah compliance an e-business (business that runs on the internet) companies. Besides, this research also meant to spread and widen the scope of Halal certificates to this kind of business (e-business). Furthermore, it’s purpose were also to produce a guideline to the e-business management on how to comply themselves with Shariah and the steps that need to be taken in order to ensure their e-business is comply with Shariah.

The research that has been developed is not only useful to the top management of e-business companies. In fact, it is also very useful to other end users such as buyers or consumers. It is because of the results from the research. It can be used and applied by the management of the business whilst consumer may have the lists of e-business that has been classified as Shariah compliance e-business companies through community portal that has been developed. This list can helps consumers to prioritize their preferences in choosing right company.

The results from this research not only established an expert system called eBiz xSys that can classified these e-businesses as comply with Shariah or not. In fact, it has produce a guideline to be followed by e-business management to be part of the business that comply with Shariah. This can helps them increase their profits as consumers nowadays trusts Halal products and services. The research also developed a community portal that helps consumers getting Halal status on a company and its business.
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MSc Intelligent System 2008.
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CHAPTER ONE

INTRODUCTION

This chapter presents the overview of study that introduces the motivation and related approaches. In addition, this chapter also includes the problem statement, objectives, scope and significance of study. This chapter will explain the background of the research, the importance of the research, the basic flow of the research and the development of the research project. The problem statements, objectives, significance of the projects and scopes are also presented in this chapter.

1.0 INTRODUCTION

Halal is an Arabic term meaning ‘lawful’ or ‘permissible’. It is not only encompasses food and drink, but all matters of daily lives are taken into account. As the Halal market continues to expand, the integrity of the supply chain becomes an increasingly important issue. With major stakeholders at both the production and retail ends of the supply chain, the Halal sector naturally emerging as one of the most rapidly developing links in the Halal value-chain.

In meeting the growing demands for Halal food products, the major players are likely to demand the strictest compliance to the rules of Halal from every angle. Full ‘farm-to-fork’ Halal compliance will require a secure supply chain, with the ability to track where the product has been, from raw materials to finish product and then continue to the point it leaves the manufacturing plant right through to the supermarket shelves half way across the globe.
The contents of the thesis is for internal user only
confirmation will help consumer to give higher priorities to Halal e-business companies in choosing their products or services.

In certain condition, there exists two or more e-business that provides the same products and services that has been classified into Shariah compliance e-business companies in the database. Therefore, for future enhancement, this expert system is suggested to provide accuracy on the classification it’s made. For the accuracy, another interviews or meetings should be done with the domain expert to find the best attributes that can best describes the accuracy of the classification.

After accuracy function is provide, this project can be integrated with soft computing technique such as fuzzy logic in order to rank and give priorities to certain e-business companies (if they sell same products or services) before displaying the results to consumer. This can help consumer prioritize and narrow down their preferences.
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