Faculty of Technology Management and Technoprenurship

EMPOWERING GREEN TRADEMARK FOR ECOLABEL CERTIFICATION IN MALAYSIA

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DECLARATION

I declare that this thesis entitled “Empowering Green Trademark for Ecolabel Certification in Malaysia” is the result of my own research except as cited in the references. The thesis has not been accepted for any degree and is not concurrently submitted in candidature of any other degree.

Signature : .....

Name : Mohamad Nazmi Bin Ahmad Ridzuan

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APPROVAL

I hereby declare that I have read this thesis and in my opinion this thesis is sufficient in terms of scope and quality for the award of Master of Science in Technology Management.

Signature : .....

Supervisor Name : …….

Date : .....

DEDICATION

I lovingly dedicate this thesis to my beloved parents, siblings, teachers and friends who supported me along the way.

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ABSTRACT

The use of ecolabels in the market is increasing day by day. It is used to inform the consumer about green products and services that are available in the market. The increasing demand and the benefit given by ecolabels has made it essential for companies to certify their products or services. However, the validity of a product or service that is awarded with current ecolabels is still doubtful, such as the requirement needed by a product or service to be certified and how it can ensure the trustworthiness of the ecolabel. Besides that, the certification mark under trademark law is also used to certify products or services that have satisfied certain criteria of certification. Both ecolabel and certification have similar functions, but each of them consists of different criteria, processes and evaluation. It would be more beneficial for ecolabels to interface with green trademark as it allows protection in terms of intellectual property rights. Plus, it will strengthen the legal mechanism and guidelines for future ecolabels in Malaysia, especially as the current standards are still inadequate to monitor all the certifications in the market. The objectives of this study are to study the criteria to obtain the Energy Efficiency Label (EEL) for four specific electrical appliances as advocated by the Energy Commission of Malaysia, to analyze the certification process of EEL for four specific electrical appliances advocated by the Energy Commission of Malaysia, to examine the evaluation for the certification process of EEL for four specific electrical appliances advocated by the Energy Commission of Malaysia, and to suggest effective practices for the EEL certification of four specific electrical appliances which interface with the theoretical baselines of green trademarks in terms of criteria, certification processes and evaluation. This research is an exploratory case study using the qualitative method. Semi-structured interviews with thirteen experts on intellectual property and ecolabels in Malaysia were conducted. The data collected was analyzed using thematic analysis. From the data collected, the integration of ecolabels and green trademarks can be done in terms of criteria, process and evaluation. This study also has proposed effective practices for the certification of EEL that interface with the theoretical baselines of green trademark that can be used for future certification. As a conclusion, the interface of ecolabel certification and green trademark in terms of criteria, process and evaluation should be done for future certifications as a way to improve the certification standards in Malaysia which can benefit certification bodies, industries, consumers and the environment.

ABSTRAK

Penggunaan ecolabel di dalam pasaran kian meningkat hari demi hari. Ia digunakan untuk menyampaikan maklumat kepada pengguna mengenai kewujudan produk atau servis hijau di dalam pasaran. Permintaan yang tinggi dan faedah yang di peroleh dari ecolabel membuatkan pentingnya untuk syarikat membuat pensijilan terhadap produk atau servis yang mereka miliki. Akan tetapi, kesahihan terhadap produk atau servis yang telah diberi ecolabel masih lagi meragukan seperti ciri-ciri yang diperlukan oleh produk atau servis untuk mendapatkan pensijilan dan bagaimana ia boleh menjamin kepercayaan ecolabel tersebut. Selain daripada itu, tanda pensijilan di bawah undang-undang cap dagangan juga mempunyai fungsi yang hampir sama dengan ecolabel di mana ia digunakan untuk pensijilan produk dan servis yang telah mengikuti beberapa kriteria tertentu. Ecolabel dan tanda pensijilan mempunyai fungsi yang hampir sama akan tetapi mempunyai kriteria, proses dan penilaian yang berbeza untuk mendapatkannya.Penggabungan antara ecolabel dan cap dagangan hijau akan memberi manfaat di mana ia dapat memberi pelindungan dari sudut harta intelek. Tambahan pula, ia dapat memperkuatkan lagi mekanisma undang-undang dan garis panduan untuk pensijilan ecolabel Malaysia pada masa hadapan yang di masa kini masih lagi tidak mencukupi untuk memantau ke semua pensijilan yang ada di pasaran. Objektif kajian ini ialah untuk mengkaji kriteria untuk mendapatkan Energy Efficiency Label (EEL) bagi empat peralatan elektrik tertentu yang telah dianjurkan oleh Suruhanjaya Tenaga Malaysia, menganalisis proses pensijilan EEL bagi empat peralatan elektrik tertentu yang telah dianjurkan oleh Suruhanjaya Tenaga Malaysia, untuk memeriksa tatacara penilaian EEL bagi empat peralatan elektrik tertentu yang telah dianjurkan oleh Suruhanjaya Tenaga Malaysia dan mencadangkan amalan efektif untuk pensijilan EEL ke atas empat peralatan elektrik khusus untuk disesuaikan bersama teori cap dagangan hijau terhadap kriteria, proses pensijilan dan penilaian. Kajian ini adalah adalah kajian jenis penerokaan dimana pengkaji menggunakan kaedah kualitatif iaitu wawancara separa berstruktur terhadap tiga belas pakar harta intelek dan ecolabel yang terlibat di Malaysia. Dapatan kajian ini di analisa menggunakan analisis tematik. Daripada data yang telah dikumpul, penggabungan antara ecolabel dan cap dagangan hijau boleh dilakukan dari aspek kriteria, proses dan penilaian. Kajian ini juga telah mencadangkan amalan berkesan untuk pensijilan EEL yang telah digabungkan dengan garis asas cap dagangan hijau yang boleh digunakan untuk pensijilan pada masa hadapan. Kesimpulannya, penggabungan pensijilan ecolabel dan cap dagangan hijau dari aspek kriteria, proses dan penilaian perlu dilakukan untuk menambah baik standard pensijilan di Malaysia yang boleh dimanfaatkan oleh badan pensijilan, industri, pengguna dan juga alam sekitar.

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COA	-	Certificate of approval
EEL	-	Energy efficiency label
IP	-	Intellectual property
MEPS	-	Minimum energy performance standards
PCS	-	Product certification scheme

LIST OF PUBLICATIONS

Journal:

1. Ridzuan, M.N. and Chew, B.C., 2018. Application of Green Intellectual Property on Green Technology in Malaysia and Its Benefit: A Review of the Literature. *Journal of Advanced Manufacturing Technology (JAMT), 12*(1 (1)), pp.73-86.
2. Rehat, A., Hamid, S., Ridzuan, M.N. and Cheong, C.B., 2016. Enhancing Organization Performance Through the Implementation of MS1900: 2005. *Journal of Technology Management and Business*, *3*(1).

CHAPTER 1

INTRODUCTION

1.1 Introduction

This chapter outlines the introduction that informs all readers the general information of the whole research. The background of the study is discussed in Section 1.2; the problem statement and research questions in Section 1.3; the research objectives in Section 1.4; the scope, limitation and key assumptions of the study in Section 1.5; the thesis organization in Section 1.6, and lastly the summary in Section 1.7.

1.2 Background of study

Products or services have always been marked by their own names, brands or logos to show the identity of the product and for marketing purposes. According to Sidhu (2011), trademarks are one of the intellectual property tools that distinguish goods and services of one trader from the others. Apart from trademarks, an ecolabel is also a type of trademark which provides assurance for consumers as it has positive environmental implications.

From the perspective of intellectual property, any type of ecolabel is bound to the certification mark under the trademark law. The purpose of certification marks is to inform consumers about the characteristics about a product, to certify regional, material, mode of manufacture, quality and accuracy of the product. The ecolabel is both responsible for promoting the product as well as delivering accurate information about the product in order to reduce environmental impact. Ecolabels can only be awarded to products that have

passed all the criteria, procedure and evaluations that indicate overall environmental preferability

(Golden et al., 2010). Besides informing consumers about the environmental benefits of a particular product or service, an ecolabel suggests sustainable consumption through substitute purchases based on the information provided (Horne, 2009). This helps consumers to differentiate between products that can reduce environmental impact and products that have more environmental impact.

The national labeling program was launched in 1996 by the Standard and Industrial Research Institute of Malaysia (SIRIM). Under the program, a single-attribute product certification program was created to verify products according to their environmental criteria such as biodegradability, hazardous metal-free electrical and electronic equipment and recycled paper. There are also ecolabels that relate to other sectors such as the Malaysian Farm Certification Scheme for Good Agriculture Practice (SALM) and the Malaysian Organic Scheme (SOM) for agricultural sectors, the Malaysian Timber Certification Scheme (MTCS) for forestry sectors, the Water Efficient Product Labeling Scheme for water sectors and the Energy Efficiency Label (EEL) Scheme for energy sectors. For this research, the term ecolabel is expanded to include all products under the environmental system.

According to Osmanab et al., (2016), the population in Malaysia is increasing between 0.4 million to 0.7 million on average per year. The increasing population will lead to a higher demand for electrical appliances which are used in daily life (Lundgren, 2012). Having said that, EEL was chosen for this study as there will be more electrical appliances available in the market to fulfill consumer demand. EEL is an excellent strategy for consumers to use energy wisely. It was endorsed by the Energy Commission of Malaysia to assist Malaysian consumers in purchasing environmentally friendly products. The EEL

helps consumers to compare the performance of products at a glance especially for televisions, refrigerators, domestic fans and air conditioners.

The purpose of IP tools such as trademarks does not only promote IP creations but also facilitate the advancement of human welfare (Nitta, 2005). Green trademarks exist not only to promote environmental sustainability but also tap into the opportunities offered by a green economy. The International Patent Classification (IPC) and European Patent Office (EPO) have implemented green trademarks by introducing classification schemes for green technology. Ecolabel is a small part of Malaysia's efforts in materializing the green trademark. The certification criteria, procedure and evaluation of ecolabels are the keys that can help achieve the Green Trademark IP.

1.3 Problem statements and research questions

As mentioned by Barry et al. (2012), hundreds of ecolabels have been established over time and succeeded commercially. Ecolabels provide consumers with information about the environmental quality of individual products at the point of purchase (John et al., 2010). Products with ecolabels are preferred and perceived to be safer and friendlier to both the consumer and the environment (Nøstvold et al., 2014). In addition, the use of ecolabels continues to expand based on consumer demand and the reputation and market-entry benefits they provide to businesses (Adelman et al., 2017). The existence of ecolabels presents an opportunity for companies that use ecolabels on their products to increase their profit by encouraging customers to buy these products. However, despite this, there is a rising concern for environmentally friendly products (Azizan & Suki, 2014). What stands behind the ecolabel, and does the products meet the requirement of the ecolabel certification? Similar to ecolabels, the certification mark is driven by environmental commitments and marketing objectives that reflect consumer preferences (Adelman et al.,

2017). However, in contrast to the traditional trademark, the certification mark can be issued to any company that meets the standard for a certifying entity, but it may not be applied by the mark's owner (Contreras, 2012). Both ecolabel and certification marks help consumers to choose sustainable products while attracting more consumers towards the products. However, gaps exist between ecolabel and certification marks where both have similar functions but have different requirements. According to Heh (2014), current laws and legal mechanisms are inadequate to monitor the increasing use of certification and endorsement claims in the market. In the 10th Malaysia Plan (2011-2015), the government plans to increase the energy label for common electrical appliances from four to ten electrical appliances that allow consumers to make informed decisions as they purchase energy-efficient products (The Economic Planning Unit, 2010; Energy Commision, 2017). However, currently, there are still only four electrical appliances that use the energy label. In order to improve and increase the energy label, the certification of the EEL by the Energy Commission was chosen as the case study for this research to see how its criteria, procedure and evaluation can be integrated with green trademarks. By referring to these problems, the research questions for this research are:

a) What are the criteria for obtaining the Energy Efficiency Label for four specific electrical appliances advocated by the Energy Commission of Malaysia?
b) What is the certification process of the Energy Efficiency Label for four specific electrical appliances advocated by the Energy Commission of Malaysia?
c) What is the evaluation for obtaining the Energy Efficiency Label for four specific electrical appliances advocated by the Energy Commission of Malaysia?

d) What are the best practices of the Energy Efficiency Label for four specific electrical appliances which interface with the criteria, procedure and evaluation of green trademarks?

1.4 Research objectives

The research objectives of this study are:

a) To study the criteria to obtain energy efficiency labels for four specific electrical appliances as advocated by the Energy Commission of Malaysia.

b) To analyze the certification process of energy efficiency labels for four specific electrical appliances advocated by the Energy Commission of Malaysia.

c) To examine the evaluation for obtaining energy efficiency labels for four specific electrical appliances advocated by the Energy Commission of Malaysia.

d) To suggest effective practices for the certification of energy efficiency labels for four specific electrical appliances which interface with green trademarks in terms of criteria, procedure and evaluation.

1.5 Scope and key assumptions of the study

All labels, logos and signatures that are used on products or services are known as trademarks. Besides traditional trademarks, there other types of trademarks that are used in the market such as certification trademarks or ecolabels. The EEL is one of the ecolabels that is used for most electrical appliances locally and internationally. However, most ecolabels cannot be treated as green trademarks. This is because the statement or claims of ecolabels may not be true. The researcher chose ecolabels, specifically the EEL in Malaysia, as the case study of this research. This study presents the empirical findings of