

A STUDY ON FACTORS INFLUENCING THE COMMERCIALISATION OF
INNOVATION IN SARAWAK INDUSTRIES

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Report submitted in fulfillment of the requirement for the degree of Bachelor of
Technology Management (Hons) in Technology Innovation

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JUNE 2015

I declare that this project is the result of my own research except as cited in the references. The research project has not been for any degree and is not concurrently submitted in candidature of any other degree.

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DEDICATION

This research paper is dedicated to my beloved parents who educated me and motivate me to reach at this level. They constantly give me support and advice throughout the process. Without their blessing and encouragement, this research is impossible to complete.

ACKNOWLEDGEMENT

I take this opportunity to express my profound gratitude and deep regards to my supervisor, Dr. Norain Binti Ismail for her exemplary guidance, monitoring and constant encouragement throughout the course of this research. The blessing, help and guidance she gave from time to time shall carry me a long way in the journey of life on which I am about to embark.

Secondly, sincere appreciation and thanks to Dr. Chew Boon Cheong who positively guiding, supporting and contributing his opinion and experience in completing this research.

Lastly, deepest thanks and appreciation to my family and friends with their endless support, encouragement and care during the report completion from the beginning till the end.

Thanks again to all who helped me.

ABSTRACT

Commercialisation of innovation has become a major issue around the world, where many industries are moving into innovation and knowledge-based industries. However, lack of professional human resource, lack of knowledge management and inappropriate management of development are the problems that influence the commercialisation activities in Sarawak. The purpose of this research is to study the main factor that contributes to commercialisation of innovation in Sarawak industries and examine how this factor influence the commercialisation activities. This study also aims to suggest some improvements for the commercialisation in Sarawak industries. This research is descriptive, and used a qualitative research method to identify the main factor, which influenced the commercialisation of innovation in Sarawak industries. The data was collected through semi-structured interview to identify factors considered to influence the success of commercialisation of innovation. In this study, Allianz General Insurance Company (M) Berhad and Subur Tiasa Holding Berhad were selected among the Sarawak industries to investigate what are the main factor that lead to the commercialisation of innovation. The result shows that investment in human capital is the main factor that can increase the success of commercialisation of innovation in products and services. Furthermore, the human capital investment can enhance their skill and knowledge as well as enhancing creativity, productivity and efficiency to achieve the success of commercialisation activities. The study concludes that a positive incidence not only on the successful of commercialisation of innovation in Sarawak industries but it also gives some initial contributions toward the development of successful of commercialisation of innovation in Malaysia.

Keywords: Commercialisation, human capital investment, innovation, skills and knowledge

ABSTRAK

Pengkomersilan inovasi telah menjadi isu utama di seluruh dunia, di mana banyak industri bergerak ke dalam inovasi dan industri berasaskan pengetahuan. Kekurangan sumber manusia profesional, pengurusan pengetahuan dan kelemahan pengurusan pembangunan merupakan masalah yang mempengaruhi aktiviti pengkomersilan di Sarawak. Tujuan kajian ini adalah untuk mengkaji faktor-faktor utama yang menyumbang kepada pengkomersilan inovasi dalam industri Sarawak dan mengkaji bagaimana faktor ini mempengaruhi aktiviti pengkomersilan. Kajian ini juga bertujuan untuk mencadangkan beberapa penambahbaikan untuk dikomersialkan dalam industri Sarawak. Kajian ini dianggap deskriptif dan menggunakan kaedah penyelidikan kualitatif untuk mengenal pasti faktor-faktor utama yang mempengaruhi kejayaan pengkomersilan inovasi dalam industri Sarawak. Data dikumpul melalui temubual separuh struktur tujuan untuk mengenal pasti faktor-faktor yang dianggap sebagai pengaruh kepada pengkomersilan inovasi. Dalam kajian ini, Syarikat Subur Tiasa Holdings Berhad dan Allianz General Insurance (M) Berhad telah dipilih di kalangan industri Sarawak untuk mengkaji apakah faktor-faktor utama yang membawa kepada kejayaan pengkomersilan inovasi. Hasil dapatan menunjukkan bahawa, pelaburan dalam modal insan adalah faktor utama yang boleh meningkatkan kejayaan pengkomersilan inovasi dalam produk dan perkhidmatan. Pelaburan modal insan boleh meningkatkan kemahiran dan pengetahuan mereka serta meningkatkan kreativiti, produktiviti dan kecekapan untuk mencapai kejayaan aktiviti pengkomersilan. Kajian ini menyimpulkan insiden yang positif bukan sahaja kepada kejayaan pengkomersilan inovasi dalam industri Sarawak tetapi ia juga memberikan beberapa sumbangan kepada pembangunan kejayaan pengkomersilan inovasi di Malaysia.

Kata kunci: Pengkomersilan, pelaburan modal insan, inovasi, kepakaran dan pengetahuan.

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LIST OF ABBREVIATIONS

ABBREVIATION	MEANING	Page
MNCs	Multi-National Corporations	1
S&T	Science and Technology	1
R&D	Research and Development	2
MOSTI	Ministry of Science, Technology and Innovation	2
MID	Ministry of Industrial Development	7
AMB	Allianz Malaysia Berhad	8
AGIM	Allianz General Insurance Malaysia Berhad	8
S&P	Standard and Poor	9
DEST	Department of Education, Science and Training of Australia	11
OECD	Organisation for Economic Co-operation and Development	12
AIC	Australian Institute for Commercialisation	17
IP	Intellectual Property	20
TTO	Technology Transfer Office	21
SME	Small Medium Enterprises	21
OEM	Original Equipment Manufacturer	22

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Nowadays, with the rapid changing of the business environment and the increasing of the global competition, business entities are engaging themselves in different innovative activities in order to survive in this competitive environment. In this knowledge economy era, it is important that bringing innovation to the market and to the hands of users or customer (Kamil et al., 2007). This is supported by Stem et al. (2000) that Malaysian government encourage bringing the idea to the market through universities, research institutes and multi-national corporations (MNC's) in stimulating innovation through commercialisation. A successful commercialisation is largely determined by the intensive collaboration of major stakeholders including institutions of applied research, private innovative companies and government agencies that establishing framework conditions for innovation invention. Thus, the network relationship is important in collaboration with different network that lead to the success of the commercialisation.

In the Ninth Malaysia Plan 2006-2010, the government has emphasized on the capacity building of the national innovation system by increasing the rate of commercialisation of research and development and creating more science and technology (S&T) based companies. In order to exploit the wealth of knowledge and turn them into intellectual property, universities and research institutions in the country are being encouraged to venture in new idea. However, Harman (2001) also

stated that the alliance between university and industry will bring a major breakthrough in commercialising intellectual property for the benefits of all.

Nowadays, nation are increasingly recognizing that promoting technology transfer and commercialisation are key to an innovative economy, and leading to the wealth creation to the nation. According to Borneo Post (2014), Malaysian's government has provided a 1Dana to boost the research and development and commercialisation to the people and companies. This is a one stop portal that enables the people to see all the grants and sponsorships for research and development (R&D) as well as commercialisation that are provided by the government and other agencies. In order to encourage the development of new products for commercialisation in Sarawak especially in Industry Cluster and Agriculture, collaboration with the Ministry of Science, Technology and Innovation (MOSTI) can help the industry move toward the commercialisation of products and services through R&D activities sponsored by the Ministry. According to Bernama (2014), in the Tenth Malaysia Plan under the third Rolling Plan, MOSTI had disbursed a grant for research and development (R&D) and commercialisation of research to six funds.

As a summary, with the support of the government agencies, alliance, and more R&D that creates innovation to the market, Malaysia are on the step moving toward to more competitive country and able to compete with the development country in the near future as well as in Sarawak. However, to understand the successful of commercialisation, a model of the factors affecting commercialisation of innovation is the next step in order to answer the question as to what are the factors that influence commercialisation of innovation in different sectors of industries, and how these factors influence the success of the commercialisation in industries particularly in Sarawak.

1.2 Problem Statement and Research Questions

In the face of global competition and environmental changes, organization faces variety of change and challenges that will have a profound impact on organization dynamic and performance. Commercialisation plays an important role in the development of the economy of the nation, as Malaysia is still left behind among its major competitors in the region as well as in Sarawak industries. In the twenty-first century approaches, countries today are constantly encouraged for economic improvement as well as increasing the commercialisation among the industries.

The industries in Sarawak still face some problem. This problem is believed to be due to the fact that there are many factors affecting the success of commercialisation of research in Sarawak. Lacks of collaboration between different networks with industries become one major obstacle towards the success of commercialisation because lack of collaboration networks such as government, supplier, customer, research institutions and universities will lead to lack of financial support, lack of resources, and lack of knowledge exchange. Strong ties between industries, universities, and government can guarantee the availability of resources such as financial resources, skilful human resources, and experienced advisors. However, the inappropriate management of development of commercialisation activities is also one of the factors that affect the commercialisation success. Due to the lack of centralised management over projects and do not have a clear, accurate, and suitable business plan can create challenges in the process of commercialisation. Besides, lack of qualified staffs also affect the proper management of industries.

Thus, this study identifies the factors that affect the commercialisation of innovation towards the success of commercialise among the industries in Sarawak and to study the main factors that influence the success of commercialise in industries in Sarawak. Therefore, this study is hoped to identify all the possible factors that contribute to the commercialisation success and this is also hoped to be able to fill the gap in the existing literatures.

1.2.1 Research Question

The following are the research questions which are important in this study:

1. What are the main factor that contributes to commercialisation of innovation in Sarawak industries?
2. How do this factor influence the research commercialisation of innovation in Sarawak industries?
3. What improvement can be made for commercialisation of innovation in Sarawak industries?

1.3 Research Objective

1. To study the main factor that contributes to commercialisation of innovation in Sarawak industries.
2. To examine how this factor influence the research of commercialisation of innovation in Sarawak industries.
3. To recommends some improvement for commercialise of innovation in Sarawak industries.

1.4 Scope and Limitation of the Study

The scope of this project is to study the factors that influence the commercialisation in Sarawak industries in which the cases study to be conducted at Subur Tiasa Holding Berhad and Allianz General Insurance Company (M) Bhd. The researcher chooses to study the industries in Sarawak because Subur Tiasa Holding Berhad is an industry which manufactured high quality of wood-based production and earned a reputation as the preferred supplier to the furniture and construction industries in global markets. However, Allianz General Insurance Company (M) Berhad is a services industry that was founded from Germany and stepped into Malaysia for development of its' insurance business. Allianz Malaysia Berhad provides both investment in general insurance and life insurance in Malaysia. Thus, the study is conducted in these two industries in order to gain adequate and comprehensive information on what are the factors that lead to these industries success in commercialisation of innovation and identify how this factors influence the commercialisation of innovation in these industries. Besides, the respondents categories chosen by the researcher consist of middle management levels such as assistant manager, business development manager, and executives who decide the policy and future direction of the company. Two respondents are selected respectively for these categories in both industries due to the respondents' position and their experiences are suitable to provide relevant information to the research questions.

There are several limitations identified in this study. Firstly, the limited time frame. The time-cross-section of this research only available on September 2014 to June 2015, those happening before and after the research time frame will not be taken into account to this research. Besides, collecting the information and data and the result might be insufficient. The number of respondents also might be limited due to limited collection time of responses. Secondly, the case study is to investigate the factors that influence the success of the two companies, Subur Tiasa Holding Berhad and Allianz General Insurance Company (M) Bhd. Thus the outcome of the study only applicable to Subur Tiasa Holding Berhad and Allianz General Insurance Company (M) Berhad.

1.5 Importance of the Study

In general, the research is important in identifying the most important factors that contribute to the success of commercialisation in Sarawak industries. The identification of factors that affect the commercialisation success can help the Sarawak industries to understand and to be alerted about any obstacle during commercialisation activities being carried out. Besides, by the identification of these factors, it can provide the Sarawak industries a guideline for future action and improvement for the success of commercialisation. However, the commercialisation research also provides the advantages to the Sarawak industries in terms of understanding on the current commercialisation trend. Thus, the industries can become more competitive by adapting to these factors to become their corporate strategies in commercialising their innovation especially in Sarawak industries.

1.6 Summary

In conclusion, this chapter identifies the current situation of the commercialisation of the innovation in Malaysia as well as in Sarawak. From this chapter, the researcher identifies that there are some gaps that Malaysia face and they are still not competitive enough compared to other developed countries. The problem that the industries face includes lack of the collaboration among the industries and also inappropriate management of development of commercialisation activities.

However, regarding to the topic of the study on factors that influence commercialisation of innovation in Sarawak industries; the case study focuses on Subur Tiasa Holding Berhad and Allianz General Insurance Company (M) Berhad on which factors are the most effective in contributing to the success of the commercialisation and also to identify the factors need to be considered in order to improve the commercialisation of innovation in Sarawak industries.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

This chapter presents the previous research and studies which are relevant to the purpose of this research. The review describes the concept of the commercialisation and its' relation to the innovation. The factors that influence to the successful of the commercialisation in the industries will also be elaborated in detail to provide deep understanding.

2.2 Sarawak Industries

According to Rahim and Hamdan (n.d), Sarawak is largely export-oriented and primary commodities dominated. In this rapid economic era, Sarawak has been transforming the agricultural based economy to an industrialisation state in Malaysia. However, Borneo Talk (2013) has explained that Sarawak is the largest state in Malaysia which currently become the best investment opportunities for foreign investors with wide range of investment incentives for priority industries. This is supported by Ministry of Industrial Development, Sarawak (MID) that Sarawak is rich in natural resources which through efficient management by a good and prudent Government that contributed to Sarawak's strong economic growth. Thus, with the good opportunities for investment in Sarawak industries, there also have it factors that contribute to the success of the commercialisation in Sarawak industries.

However, there are different type of industries in Sarawak which includes Hi-Tech with emphasis on Electrical and Electronics, Mixed Light industries and Medium industries, Ship-building industries, Timber-based industries, Wood-based industries, Petrochemical industries, Heavy and Energy intensive industries, and Halal-Hub industries. The State Government has continued to develop industrial zones and estates, and simultaneously encourages the private-sector develop industrial estate to cater for industrial growth.

2.3 Allianz General Insurance Company (M) Berhad

Allianz Malaysia Berhad (AMB) is part of Allianz Group in Germany. Allianz Group was founded in 1890 in Germany and it officially stepped foot in Malaysia in 2001 when it became the controlling shareholder of Allianz General Insurance Malaysia Berhad (AGIM). In 2007, the general insurance business of AGIM was transferred to its wholly-owned subsidiary, Allianz General Insurance Company (Malaysia) Berhad (Allianz General). Following the completion of the transfer of general insurance business, AGIM changed its name to Allianz Malaysia Berhad (AMB). AMB is an investment holding company that has two wholly-owned subsidiaries - Allianz Life Insurance Malaysia Berhad (Allianz Life) and Allianz General. Allianz General is one of the leading general insurers in Malaysia and has a broad spectrum of services in motor insurance, personal lines, small to medium enterprise businesses and large industrial risks. Allianz Life offers a comprehensive range of life and health insurance as well as investment-linked products and is one of the fastest growing life insurers in Malaysia. (Allianz official website, 2015)